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UNIVERSITY OF ALBERTA

DIRECT OBSERVATION OF COMMUNICATIVE INTERACTION IN A GROUP HOME SETTING

BY

MARYA STEPHANIE OWEN

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE DEGREE OF MASTER OF EDUCATION

IN

SPECIAL EDUCATION

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled DIRECT OBSERVATION OF COMMUNICATIVE INTERACTION IN A GROUP HOME SETTING submitted by MARYA OWEN in partial fulfillment of the requirements for the degree of MASTER OF EDUCATION in SPECIAL EDUCATION.

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DATE: July 21, 1992

To my parents,

who have always believed in me

Abstract

This study involved the use of direct observation to characterize patterns of communication between staff and residents in a group home setting. Intent of the speaker, percentage of discourse, and group turntaking were coded and analyzed by means of a video recorder and a modified data collection sheet. Variability in amount of verbal expression was observed for two staff members and four residents. Staff members appeared to account for the majority of utterances and topic initiations while residents for the most part adopted a passive role in the communicative interaction. An analysis of turntaking patterns suggested that in group discourse, questioning type speech preceded a greater number of subsequent conversational turns than did command or declarative type speech. The implications of this finding were discussed in terms of recent studies of mother-child interaction. As well, considerations with regard to further research and residential staff training were presented.

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Chapter I

Introduction

The concept of normalization as first introduced by Wolfensberger (1972, 1980) and others (Mayeda,1979; Nirje, 1969) described a living environment that closely paralleled conditions enjoyed by the non-handicapped population. The manifestation of these normalization principles included a philosophical and physical transition to environments considered "least restrictive" but wholly supportive of the individual's continuing development. Research has supported the benefits of transferring people with mental handicaps from institutional living to community-based services by examining the developmental and behavioral characteristics of those persons who remain institutionalized, and those who reside within a natural setting (e.g., Conroy, Efthimiou, & Lemanowicz, 1982; Zigler & Balla,1977).

Wolfensberger has more recently proposed a new term to replace *normalization* (1983). *Social role valorization* refers to the creation of valued roles for persons with mental handicaps within "normal" society. Wolfensberger stated:

> the more social value that is accorded to a person, the more s/he will usually be encouraged to assume roles and behaviors which are appropriate and desirable , the more will be expected of him/her , and the more s/he is apt to achieve. (p.235)

According to Wolfensberger, enhancement of a person's social image and personal competencies may facilitate the goals of social role valorization. Within these two areas, sub-goals include promotion of a grouping size which facilitates social integration, and improvement of general social integration skills. This can be accomplished, in part, by the formation and maintenance of personal relationships.

The current trend toward the acknowledgement of a least restrictive living environment for people with disabilities supports the philosophy of normalized living

conditions; hence, community residential placements are becoming widespread (Switzky, Dudzinski, Van Acker & Gambro, 1988). Issues that have arisen from community-based housing involve provisions for improving or maintaining the quality of life for the resident. Blunden (1988) identified four key factors that may be said to influence one's quality of life. They are: physical well-being, material well-being, social well-being, and cognitive well-being. Within the element of social well-being, he cited O'Brien's (1987) five components of a valued social life. They include, competence in communication, mobility, self-help, social, and leisure skills in order to participate more fully in social relations.

Communicative competence implies an ability to function within normal social discourse, and is considered essential to the task of forming and maintaining relationships (Blunden, 1988). Communication patterns among people who have been labeled with a mental disability and who reside in community-based settings have been studied to some degree, with much of the emphasis placed on the teaching of communication skills to the residents by therapists in isolated contexts (Marvin, 1985). More recently, research on communication patterns that exist between peers and co-workers has provided more of an insight into the communicative functioning of this population (Abbeduto & Rosenberg, 1980; Kenefick, 1986).

A lack of research continues to exist, which examines the communicative interaction patterns within naturalized settings between adults with mental handicaps and their non-disabled staff. Research in the area of communicative interaction patterns has typically focused on the child population and mother-child dyadic models. This is a particularly significant issue given the current trend toward deinstitutionalization and community integration for adults with mental handicaps. Residential facilities, it may be argued, are meant to simulate a home or family-oriented type of environment, where staff act as the primary caregivers to the adult residents. The degree to which that is true would depend on the residents' level of independence. Therefore, interactions which facilitate appropriate interpersonal social skills have been viewed as positive training objectives for staff

members working with this population (Burchard & Thousand, 1988). However, compared to the literature on mother-child communicative interaction, there is relatively little data on the nature of the communicative interaction which occurs between staff and clients with mental disabilities. It is tempting to generalize the mother-child literature on communicative interaction patterns to the adult population using the rationalization that the caregiver-adult client model is similar to the mother-child model. Before such a generalization can be made, data must be collected which reflects staff and client communicative behavior within naturalized settings. Research specific to the population will provide information that may be utilized by professionals to provide better service to residents with mental disabilities. Further research will also determine whether mother-child studies may indeed be generalized to other populations.

It appears that analysis of group turntaking patterns is limited within the literature using this population. The present study characterized patterns of communication between two staff and four residents in a group home for adults with mental handicaps. Observations were video-taped and analyzed by the primary researcher within a meal-time subsetting over a period of 5 days.

Specifically, communicative utterances and initiations by all subjects were classified into 4 categories according to the intent of the communicative message. Number of turns following each category of initiation were counted, in order to obtain an index of subsequent conversational length. This study is considered a preliminary characterization and method of analysis which may serve as a foundation for further research.

This document is presented in six major sections. Chapter Two outlines recent literature pertaining to speech and language classification and studies of communication involving both children and adults. Chapter Three outlines the rationale and research questions of the study and Chapter Four describes the methodology used. Results of the analysis are presented in Chapter Five, and a discussion of the findings and their implications may be found in Chapter Six.

Chapter II

Review of Literature

The current practice of service for persons with mental disabilities includes the provision that the living environment subscribe as closely as possible to the normalization principle. Quality of life issues center around many domains including that of social relations. In this vein, communication skills have been identified as being central to the maintenance of social interaction between the speaker and the listener (Bloom & Lahey, 1978). Traditionally, communication therapy has been seen to be the work of speech and language therapists, performed in isolated therapy sessions (Marvin, 1985). Newhoff and Browning (1983) suggested that communication intervention which addresses only the speech-language behaviors of the client may be ignoring important caretaker behaviors which influence the social effectiveness of a person's communication attempts. As well, the need for communication learning to occur in a natural setting in order to promote better generalization has been recognized (Costello, 1983; Warren & Rogers-Warren, 1985).

According to Marvin (1985), the shift from therapist directed intervention, to caregiver participation in a natural setting, dictates the need for professionals to observe, analyze and intervene with communicatively handicapped individuals in naturally occurring communicative environments. This review will examine the research pertaining to issues surrounding the enhancement of communication skills for individuals living in community-based residential placements. The initial section will discuss variables which contribute to successful community placement. The form and function of language will be then reviewed with an emphasis on pragmatics, speech acts classification, and turntaking. Studies which focus on the communicative interaction patterns between children and adults will follow. Although the population in the present study are adults, the bulk of the literature on this topic remains focused on the child population. This is likely due to the

fact that language is considered a developmental issue that pertains primarily to the emergent communication skills of infants and pre-school aged children. Hence, studies which are relevant to the topic but not necessarily the population will be reviewed. Finally, literature which has focused on adults and communicative interaction patterns will be examined in the final section of this chapter.

Quality of Life in Residential Settings

Historians credit the presidential election of John F. Kennedy in 1960 with the awareness of civil liberties for people with mental handicaps (Braddock, 1988). This awareness burgeoned in the 1970's with advocacy groups working on behalf of people who were developmentally delayed and continued through the 1980's with the widespread practice of deinstitutionalization. There have been several empirical studies which have provided support for the facilitation of community living, and evidence has accumulated that community residential settings promote adaptive behavior (e.g., Eyman & Arndt, 1982), and language development (e.g., McNutt & Leri, 1979). As well, the fundamental rights of individuals have continued to be advocated by persons concerned with the issue of *quality of life*. O'Brien (1987), in particular, has identified five components of a valued social life which are expanded upon below. They are:

1. The ability for individuals to have access to other people in their community and to be able to utilize the various services found within their community.

2. The presence of social relationships with friends, family, colleagues, and peers.

3. The right to make choices about personal lifestyle. The simple availability of choice between a meal, an activity, or an article of clothing, may enhance the self-esteem of an individual.

4. Competence in communication skills, self-help skills, mobility and social skills. This competence can provide a wider range of experiences available to the individual and subsequently enrich the quality of their lives.

5. The right of the individual to earn respect for their contribution to their community and larger society. This component relates to the social value placed on the person by other members of society which has been discussed previously by Wolfensberger (1983).

There appears to be a rather vague awareness of the skills that would be required by staff in order to promote the facets of a quality existence as presented above. A recent study by Thousand, Burchard and Hasazi (1986) identified two general clusters of skills that were identified as measures of staff competence. Cluster 1 included an understanding of how to apply normalization principles, value-based interpersonal skills, and an ability to work effectively as a member of an agency or team. Cluster 2 identified technical competencies such as the ability to collect and evaluate data. The area of "value-based interpersonal skills" appeared to concentrate on staff competency in empathizing and communicating effectively with residents and included objectives such as " shows ability to communicate and relate positively and respectfully to persons with retarded development" and "identifies social and recreational resources and opportunities for residents in the community" (p.260). Yet it seems that there is no specific understanding of the competencies required by the *resident* that they may employ in order to facilitate their own social acceptance. An understanding of resident adult competencies in specific areas such as verbal communication or social interaction patterns, rather than the promotion of general tenets involving "interpersonal skills," would better assist staff in planning training programs which would involve both caregiver and resident. Burchard and Thousand (1988) stated that "empirical validation of the competencies (of staff) is needed with respect to their direct relationship to desired resident outcomes" (p.259).

Lovett and Harris (1987) conducted a study to determine whether adults with mental handicaps could indicate the skills they deemed important for successful community living. Forty-eight adult subjects with mild to moderate mental disabilities and living in community-based group homes were interviewed. Five skill areas which included

vocational, social, personal, academic, and leisure skill were rated by the subjects according to perceived importance. Vocational skills were rated highest and social skills were rated second highest by the participants. Desirable social skills included answering the telephone, having good table manners, speaking clearly, and going on a date.

These identified skills in their precision imply that staff objectives may be stated more specifically and less generally. Therefore, to facilitate the goals of residential placement, then, staff may identify the skills required by their clients as a means of developing training models for themselves. For instance, if residents would like to be able to participate in a conversation during a coffee break at work, their staff would ideally study the literature involving adult verbal interaction patterns with a specific focus on individuals with developmental delays. Consequently, the staff might encourage the individual to communicate using a certain mode or voice tone or responding pattern to help facilitate this goal. The need for staff to promote the philosophy of civil liberties for individuals with mental handicaps is a noble cause but must be viewed as a methodological exercise rather than simply a humanitarian one. This requires an understanding of the behavior which may characterize this population and the conditions under which they respond. The area studied here involves verbal communicative behavior. The following section concerning pragmatics provides a foundation for the rationale behind the analysis of verbal interaction.

Pragmatics and Social Competence

The components of language or its basic rule system includes syntax, morphology, phonology, semantics, and pragmatics (Owens, 1984). Syntax refers to the rules governing work order in a sentence. Morphology refers to the aspect of language concerned with rules governing change in meaning within a single word. For instance, adding an *s* to the end of the word *sock*, changes its meaning. Phonology refers to those rules which govern how sounds fit together to form a word. For example, the "*oo*" in *wood*, sounds different from the "*oo*" in *food*. Semantics refer to the meaning of the word

or words and pragmatics involve the aspect of language concerned with use within a communication context. In 1927, DeLaguna stated, "Men (women and children) do not speak simply to relieve their feelings or to air their view, but to awaken a response in their fellows and to influence their attitude and acts" (p.27). The term pragmatics was first introduced by Elizabeth Bates in 1976, who defined it as "rules governing the use of language in context" (p.420). These rules of communication are viewed as part of a larger system of social competence (Goffman, 1981). Such a system implies that appropriate communication which satisfies socio-cultural boundaries and contexts may be considered a measure of skill in social interaction (Prutting, 1982).

Roth and Spekman (1984), acknowledged that the development of pragmatic skills in individuals who have been labeled handicapped has not received the attention it deserves from clinicians. This inattention has occurred despite concerns that there are individuals who are disabled whose social interaction skills are not necessarily reflective of their linguistic skills. The implication is that one's ability to maintain a social exchange may be as contingent on non-verbal or minimally verbal responses as on highly verbal expressive skills. In order to study this aspect of communication, Prutting (1982) identified the dyad as the minimal unit of analysis of pragmatic interaction. Behaviors such as turntaking and topic maintenance were chosen as variables of interest in the dyadic interaction.

Prutting and Kirchner (1987) have developed a pragmatic protocol to test pragmatic aspects of language in conversational speech. The authors cautioned that in order appropriately to judge the pragmatics in language, one must first understand the sociolinguistic background of the subjects. A researcher should also ensure that the communicative partners are positive or neutral toward each other, with the assumption being that partners intend to participate in a cooperative discourse. Observers must also take into account that the appropriateness of responses or initiations to the context or topic of the conversation is highly variable among participants. Verbal aspects of the pragmatic protocol include turntaking, turntaking response, and topic maintenance. The authors

tested the utility of the protocol on a sample of conversational speech from subjects in six groups, and found it a useful tool for deriving a profile of communicative difficulties across clinical populations of language disordered children and adults.

Roth and Spekman (1984) identified three levels at which communication skills may be analyzed. *Communicative intentions* of the speaker, *presupposition*, which allows the speaker to conform the message to the needs of the listener, and *social organization of discourse* which has to do with maintaining the dialogue "between and among partners over several conversational turns" (p. 2). Communicative intentions may also be identified as illocutionary acts, and can be conveyed in a number of ways (e.g., gesturally, verbally, intensity of voice). A single utterance may be used to convey a variety of possible intentions. For instance, the function of "Is it nice outside?" may be to decide on whether or not to put a coat on. On the other hand, the function of the statement may be to gain factual information on the weather conditions. Presupposition is required on the part of the speaker in order to take the perspective of the listener and conform the message to accommodate that level of understanding. For example, the statement " the Oilers are going to win tonight," is uttered with the presupposition that the listener knows that "the Oilers" refers to a hockey team and that there is a game that evening. Social context variables are examined in terms of listener characteristics, the channels available for communication, and the environment in which an interaction is taking place. In order to properly analyze these and other features of a discourse Roth and Spekman identified videotaping as the preferred method of data collection since "repeated viewing of an event is needed to fully describe the verbal and nonverbal aspects of an interaction" (p.13). Communicative intentions previously have been classified using several taxonomies. A portion of these taxonomies will now be discussed with a focus on classification schemes that typically have been utilized within the literature.

Speech Acts Classification

According to Bach and Harnish (1979), an illocutionary act is distinguished by its effect of the hearer recognizing the intent of the speaker. For instance, the phrase "I'll kill you" is recognized as a threat. The phrase "Get me some popcorn" is recognized as a command, and the phrase "The world has gone to pot" is recognized as an opinion. The authors' taxonomy of communicative illocutionary acts is divided into six general categories. The four main categories are constatives, directives, commissives, and acknowledgements. A constative may be defined as an expression of a belief, with the purpose of having the hearer form a like belief. For example, an assertion such as "the N.D.P. are the best chance for Canadian unity," is stated with the intent that the hearer adopt the same opinion. A directive in this taxonomy goes beyond the intent of the constative in that the speaker's purpose is to stimulate an action on the part of the hearer. For instance, a requestive such as "let the cat out" implores the hearer to action in a direct manner. The statement "don't you think the cat would like out?" is meant to accomplish the same goal, but is communicated more passively. Commissives indicate that the speaker obligates him or herself toward some action. A commissive statement in part, may be in the form of a promise or offer such as "I will never lie to you" Acknowledgments express certain feelings toward the hearer. They are expected in part to satisfy social expectations that such feelings will be expressed (e.g., "I'm sorry for saying that."). Acknowledgments may also take the form of greetings, or congratulations.

Adapting the work of Bach and Harnish (1979), and Dore (1977), Dimitracopoulou (1990) further identified major classifications of conversational action which they have used in the analysis of children's language. Types of speech acts include assertives, responsives, requestives, commissives, expressives and acknowledgements. Assertives parallel the classification of constatives explained above. Utterances which report facts or state rules such as "the plants need water everyday" are considered assertives. Requestives and responsives, respectively, denote utterances which solicit information

from the hearer, and utterances which supply information to the prior requestive act. "What type of dog is that?" is classified as a requestive, "A Labrador retriever" would be classified as the responsive. Commissives are again described in terms of promises or offers, such as "let me help you with that". Acknowledgements are classified as utterances which generally recognize prior non-requestive type speech acts, while helping to maintain the conversation. As with Bach and Harnish's taxonomy, acknowledgments may be in the form of thanks, apologies, or greetings (e.g., "nice to see you!"). These methods of classification appear to serve as a foundation for variables defined in studies pertaining to communicative interaction. More will be discussed on classification systems used in empirical studies in the subsequent sections of this review.

The classification systems presented above may apply to the adult and child population and have been utilized in research studies involving both groups. The following section reviews studies of communicative interaction within the child population. A portion of these studies have adapted the classification systems previously discussed.

Children and Communicative Interaction Skill

It has been established in the research that the development of language is dependent on the socio-interactive behaviors that take place within the natural environment. Investigations in this field have reported that language and communication develop in part within reciprocal turntaking relationships and that these relationships are central to improving the communication of persons with disabilities (MacDonald & Gillette 1984, 1985; Warren & Rogers-Warren, 1985). In terms of pragmatic function, it has been recognized that in order to maintain appropriate conversation in a number of settings, the facilitation of turntaking is imperative to provide the requisite understanding of give-and-take in order for both participants to learn reciprocity from each other (Bronfenbrenner, 1979; MacDonald & Gillette,1985). If persons are to increase their social adaptation and use the rules of conversation to become acceptable speakers and social partners, this aspect of communication must be addressed.

It has been found that children who regularly ignore others, associate with others only briefly, respond passively, or are primarily satisfied with their own company, will reduce their opportunities to learn the social skills needed for communication (MacDonald & Gillette, 1988). MacDonald (1984) has observed that a major goal for intervention should be for the child to learn to contact others habitually and to stay in increasingly longer and more complex interactions. A frequent event that he has observed is that of "dead-end contacts," which are interactions that last for only a few turns and hence provide limited opportunities for learning . Furthermore, MacDonald has found that the balance of these interactions is often carried by the adult caregiver who dominates the number of turns. MacDonald and Gillette observed parent-child interactions in a 1988 study and concluded that a predominance of questions and commands were utilized by the caregiver when communicating with the child. The researchers suggested that this type of verbal behavior on the part of a parent may place the child in a passive communicative role. MacDonald and Gillette stated:

> We regularly see many children with considerable language but few turntaking and conversation maintenance skills. We find that, unless a child and parent learn that each has to give and take with the other, they are unlikely to have a relationship that can teach much about the other. (p.235)

Teitelbaum and Wollner (1982) compared the natural speech addressed to a language disordered child by his speech-language pathologist, his mother, and his teacher. A variety of semantic and pragmatic features served as the basis of comparison. It was found that the mother and the teacher maintained an interactional style that was directive and tutorial. The clinician, however, followed the child's lead, commented on the child's ongoing activities and assumed a more cooperative role with the child in the interaction. When conversing with the mother and teacher, the language disordered child responded by reducing verbal responsiveness and reduced spontaneity. With the clinician however, the child was more likely to respond to or initiate speech.

It has been suggested that children with language disorders may actually shape the language behavior of their caregiver by their feedback or the lack thereof. Newhoff and Rosinski (1982) suggested that children with language disorders are generally less responsive and less assertive in their interactions. According to Newhoff and Browning (1983), the conversational partner may then respond to such children by becoming more directive, giving more commands, and being more controlling.

Traditional models of therapy with children have typically focused on dyadic interaction between a speech/language pathologist and a child. There is now a greater understanding of the need for the primary caregiver to participate more actively in the direct development of children who have a language disorder (Mahoney, 1988).

In a series of studies undertaken by Mahoney and Robenalt (1986), four classification schemes were used to compare interactive characteristics of mothers who had children with Down syndrome, with mothers having a developmentally matched sample of normal children. With the focus on turntaking, play, mothers' attention, and difficulty of mothers' action requests, researchers found highly significant group differences. Mothers of children with Down syndrome were found to take more interactive turns and to use a greater frequency of directives and a lower frequency of responses than did their matched counterparts. This finding is significant in that other studies on normal children have indicated that directive speech acts delay acquisition of expressive language skills (Newhoff & Browning, 1983).

For example, Gerrard (1989) studied the effects of child age and child intelligence on mothers' use of verbal directiveness with children who have delays and non-delayed children of two age levels. She found, with few exceptions, that mothers' directives for 4 year-old delayed children exceeded those of mothers of 2 year-old non-delayed children. Both groups of children had comparable language skills. Directives were coded as command type utterances and question type utterances for their intent to evoke a performance behavior from the child listener. The author also found that as the non-

delayed childrens' language improved, the mothers' rate of directive speech decreased. This decreased rate of directive type speech was not observed in mothers' of children with developmental delays. Gerrard cautioned that maternal directiveness may be a negative factor in children's language acquisition. She recommended that therapists focus not only on a child's communicative ability , but on a parent's as well.

There have been several other studies that have demonstrated that both children who have handicaps and non-handicapped children are influenced directly by the language style adopted by their mothers, and that a more directive style may impede child language development (Cunningham, Reuler, Blackwell, & Deck, 1981; Eheart, 1982; Hoff-Ginsburg, 1986). Davis, Stroud, and Green (1988), also came to this conclusion, however, they found no evidence that a more directive style indicated a lack of sensitivity on the part of the mother. In fact, the authors interpreted mother directiveness as "...trying to help their children by adopting an instructional strategy. The question remains however whether this more directive strategy is the most efficient" (p.151).

Mahoney (1988) found considerable variation in maternal communicative style with children who had mental handicaps. He found that maternal behavior that requested children to participate in conversations elicited higher levels of verbal expression than did maternal behavior which commanded children to perform an action. This finding suggested a reciprocal model where mothers accommodated the language level of the child by adopting an instructional style suited in vocabulary and child-centered topic. Mahoney's (1988) interpretation may be considered promising in that it deviated somewhat from the typical view of the language and communicative style of mothers with children who have a disability.

Tannock (1988) examined three dimensions of maternal and child directiveness and responsiveness in the context of differences between children with and without Down syndrome. Twenty-two mother and child dyads were studied. Dimensions of conversations that were analyzed included controlling the response of the conversational

partner, controlling the topic of the conversation, and controlling the balance of turns within the discourse.

The two groups of mothers differed significantly on all measures of turntaking control. Mothers of children with Down syndrome exhibited greater control, however, the two groups of children did not differ in terms of their overall number of utterances or turns. This finding is significant in that it corroborates a small number of previous findings which support the theory that mothers' directiveness with children who have a handicap is employed to increase the participation of a developmentally immature child and may in fact facilitate expressive language skills (Corsaro, 1979; Kaye & Charney, 1981).

In the Tannock study (1988), both groups of mothers were equally successful in initiating and maintaining topics, meaning that at least one response or turn was garnered from both groups of children. Reportedly, the mean length of topic sequences was 2.7 exchanges for mothers and children with Down syndrome, and 2.7 exchanges for mothers and children without Down syndrome.

The category of *response controls* (request for responses by the mother, directing the child to respond by suggesting or redirecting) was also analyzed. The author stated that mothers of Down syndrome children were no more directive than were the alternate group of mothers when the situations where directives were used were more closely examined. According to Tannock, both groups of mothers,

> appear to use response controls to support and encourage the child's participation in interaction rather than to override the child's established topic. ...mothers frequently incorporated request or suggestions in their responses, thereby encouraging the child's continued participation in the interaction. (p.163)

The author's interpretations of these interactions are significant given that they suggest that maternal directiveness may actually support the conversational skills of developmentally delayed children by enabling them to participate more fully in an interaction. These findings, despite previous evidence to the contrary, are provocative. However, Tannock

cautioned that the limited number of mother-child dyads and the simulated setting inhibit generalization of the results.

Romski, Sevcik, Reumann, and Pate (1989) characterized the communicative patterns of individuals with moderate or severe mental disabilities. Nine 12 year old subjects were observed in their home and school environments. Meal time was chosen as the observation period to "provide an equivalent situation for each setting" (p. 367). Twelve 1 hour samples, 6 hours in the home environment and 6 hours at school were collected across a 3 week period. Three nonparticipant observers employed a software program using a computer to enter the codes. The coding scheme characterized types of initiations, responses, communication type (e.g., spoken word, gesture), and speech act (e.g., questioning, answering, requesting). A total of 10,003 communications were recorded with proportions and means calculated for each subject along each type of communication. The results indicated that the children consistently and successfully conveyed messages to their communicative partners despite linguistic challenges. Although the communicative mode tended to be the same across settings (e.g., vocalization, vocalization and gesture, physical manipulation), individual use of the various functions or intentions of the message (e.g., answering, attention getting) varied widely among individual subjects. The authors noted that the subjects' communication must have been influenced by their partner's communicative strategies and input. For example, "it is likely that children answered questions because their partners asked questions" (p.372).

In summary, analysis of speech and language between children and their caregivers has been undertaken as part of the investigation into the conditions under which childrens' language develops. There is equivocal evidence concerning the most efficacious method of encouraging child speech, although directive or commanding type speech has been commonly identified as a conversational inhibitor. It is of interest to this study to compare the literature pertaining to children to that relating to adults and communicative interaction skills. Hence, the following section discusses literature which focuses on the acquisition

and expression of communicative competence in institutionalized and community-placed adults with mental disabilities. As well, literature concerning adolescents is reviewed.

Adolescents/Adults and Communicative Interaction Skill

As previously discussed, the ability for persons to integrate successfully into the community is often inhibited by a lack of skill in social interaction and discourse. Previous measures of social integration have included capacity measures, progress measures and lifestyle measures (Bellamy, Newton, LeBaron, & Horner, 1990; Mank and Buckley, 1989). The difficulty with such instruments is that they involve an indirect method of measurement which is dependant on the subjective observations of possibly biased individuals. Direct observation techniques however have been characterized as being less biased, more objective, and more sensitive to treatment effects than are other methods including structured or guided interviews (Hollin & Trower, 1988). All of the literature cited in this section involves direct observation of communicative interaction within the adolescent and adult populations.

In a study by Hunt, Alwell and Goetz (1988), three teenaged students with severe disabilities were taught to independently initiate a conversation and participate in conversational turntaking throughout a 10 minute session. The purpose of the study was to provide evidence that socially inappropriate behavior may be reduced if replaced by "socially acceptable, functionally equivalent communication responses" (p.20). Students were paired with five non-disabled high-school students and one university practicum student. Communication books that included pictures of objects, actions, and people were provided to the dyads to facilitate the interactions. A prompt/fade teaching strategy using verbal, physical and trainer proximity prompts was implemented by an instructor until the students were initiating and taking conversational turns independently throughout a 10 minute session. During experimental sessions, the students reportedly decreased the frequency of inappropriate social interaction behaviors.

The following questions were generated by the authors following termination of the study:

1. Would there be spontaneous interaction and demonstration of conversation turntaking in non-experimental contexts?

2. In non-experimental contexts, would students use conversation to initiate and maintain social interaction or would they use inappropriate behaviors that have in the past and perhaps in the present, served effectively to achieve the same end? (pp. 25-26)

The recommendation of research within more naturalized settings appears valid if the researcher is interested in typical patterns of response prior to and following experimental intervention.

Downing (1987), described an intervention in which three adolescents with mental disabilities were taught to initiate a topic of conversation and then continue the conversation by cueing their adult partners. Initiation of a conversation was chosen as a target skill because "the subjects' ability to cue the listener (adult) to speak was considered crucial to the initiation and maintenance of a conversation" (p.147). The study took place at a center-based educational program with subjects being trained one-to-one by the principle investigator. An initiation was defined as a verbal behavior that introduced a new topic of conversation, was preceded by a pause of 3-10 seconds , and was followed by a response by an adult listener. Cueing by the subject was considered to be any verbal behavior that acted as a stimulus for the listener's response and did not introduce a new topic of conversation.

In order to facilitate generalization to new persons, each subject was paired for brief sessions prior to and immediately following training with two novice adults from the community . The two adults were trained separately before interacting with the subjects. One was trained to facilitate conversation between themselves and the subject, and the other was trained in specific skills that would likely impede the conversational abilities of the

subject. The non-facilitating adult was trained to "dominate the conversation by providing most of the information and asking numerous questions, and asking questions that primarily required a short one-or two word response ("How old are you?" "Do you like school?")(p.150).

Results indicated increases in both target behaviors following 9 weeks of training. There was only limited generalization of each target skill to interactions with the non-handicapped members of the community. The role of the adult conversant appeared to have the greatest effect on initiating behavior since initiations were higher for the subject partner of the facilitating adult than for the subject partner of the nonfacilitating adult . The authors recommended additional research in this area to focus on the effects of a facilitating and nonfacilitating conversational partner on the conversational competence of individuals with mental disabilities. This study is interesting given that the rationale behind the intervention (questioning behavior may impede language expression) parallels results of child centered studies previously discussed. One must remember Mahoney's findings (1988) which suggested that questioning behavior may serve to facilitate an individual's participation in communication as long as there is no direct command for action.

It has been found that persons with language disorders are often involved in atypical patterns of communication with their language partners. An often reported study by Bedrosian and Prutting (1978) analyzed the conversational patterns of four mentally handicapped adults with: peers, therapist, guardian, and a six year old child. Bedrosian and Prutting found that the handicapped adults never held a dominant position with any partner. In certain cases, the subjects demonstrated the ability to control the topic, but this occurred most often when interacting with a child. According to Marvin (1985), most conversational partners for adults with mental handicaps maintain a role of teacher or trainer and may unintentionally reinforce a passive conversational style on the part of the adult with disabilities.

Anderson-Levitt and Platt (1984), investigated the differences in speech patterns displayed by residents of a group home for the mentally handicapped. Data was collected as subjects were engaged in conversation during dinner at home and at sheltered workshop meetings. The authors found that the routine and schedules of the group home limited conversational spontaneity, but provided opportunity for residents to express themselves when directed (e.g., answering yes-no questions successfully regarding their daily activities, evening plans, and immediate interests). The discussion atmosphere of the workshop provided less structure and revealed residents' ability to produce longer utterances and knowledge of turntaking conversational patterns. Marvin (1985) interpreted this data as suggesting that use of less structured more open-ended conversations or discussions might facilitate more sophisticated communication patterns in persons with mental handicaps and provide opportunities for the practice of more functional conversational exchanges.

Kenefick (1986) analyzed taped conversations of persons with developmental delays and their caregivers in group home settings. She found significant differences between the staff-to-staff exchanges and staff-to-resident exchanges. When staff members spoke to each other at break and meal times, approximately two-thirds of their speech was composed of declaratives (exchanges of information and discussions of personal happenings). In contrast, when talking with residents, approximately 70% percent of the comments were directive in nature. The balance of the speech acts consisted of volitives (eg., giving praise to residents for compliance or expressing disapproval for not conforming to staff orders or requests).

In a study by Schloss and Wood (1990), self-monitoring of targeted verbal skills was taught to 2 women with mild mental retardation and conversational skill deficits. The training and assessment procedures were carried out in a room at the Pennsylvania State University Campus. Specific skills trained included: directing a question to a group of individuals; answering directed questions; directing a question to a specific individual; and

answering a question posed to a group of individuals. Two types of self-monitoring devices, counters and switches, were used. The general method included baseline, intervention and follow-up phases. As well, generalization to one other setting, to an untrained skill, and following a 6 month period were also analyzed. The researchers found that teaching in isolation without self-monitoring was limited in its effectiveness since skills did not generalize to other conditions. However, significant improvements during the teaching and self-monitoring phase were indicated. The target behavior defined as asking non-directed questions showed the greatest improvement for both participants. A 6 month follow-up indicated maintenance of three conversational behaviors. These included asking non-directed questions, answering directed questions, and answering non-directed questions. The rate of asking directed questions returned to the baseline level. The authors recommended that further research in this area be done in more naturalized settings and that response generalization be investigated using a broader range of behaviors.

An interesting study by Abbeduto and Rosenberg (1980) analyzed triadic communication patterns involving three peers who were mildly mentally handicapped. The triads were formed by the primary researcher who retained an active participant role in the subsequent interactions. This role was described as minimal where the researcher attempted to only answer questions, or begin new topics when the conversation seemed to slow. Turntaking patterns and defined speech acts such as those outlined previously (Dore, 1978 for example) were summed over three sessions, each lasting approximately 45 to 90 minutes. Sessions were held during meal times. The authors found that speakers in groups of three tended to follow an ABA pattern of discourse rather than an ABC pattern, effectively barring a third member from a topic-centered exchange. This pattern occurred in two separate triads where one participant was common to both groups. The subject who maintained an exclusionary role in one group however, held an active role in the second group. This pattern of communication was reportedly similar to findings from studies involving non-handicapped conversants. Number of turns were calculated per group with

averages resulting in 21, 12, and 7 respectively. The authors reported that the majority of initiations were made using *non-obligating assertions* and *obligating questions* . They stated, "this demonstrates that mildly retarded adults engaged in conversation with peers are attempting to gain information by asking questions and to provide information by answering questions" (p.423).

A similar study by Zetlin & Sabsay in 1980 (cited in Abbeduto and Rosenberg, 1980) targeted subjects who were more moderately disabled. Zetlin and Sabsay reported that their subjects seldom produced commands and questions. Abbeduto and Rosenberg interpreted this discrepancy with their own study as possibly being a function of I.Q. differences and setting differences. It should be noted however that Mahoney (1988), in research with children, did not find cognitive or sensori-motor functioning to be variables related to level of language development of the children who participated in his study. Abbeduto and Rosenberg concluded that the turntaking system of adults with mild mental disabilities appeared to be as efficient as the turntaking system of non-disabled adults. The authors recommended further research in the area of communication between adults with and without mental disabilities.

Storey, Rhodes, Sandow, Loewinger, and Petherbridge (1991), assessed social interaction patterns of employees in a supported employment setting. The assessment took place over a 1 year period and involved eight employees with disabilities, and seven employees without disabilities. Observation sessions lasted 15 minutes yielding a total of 60 recorded intervals per session. Sessions were limited to actual work hours. Observers used a momentary time sampling procedure to rate the various categories of social interaction. These categories included requesting assistance, providing instruction, providing compliments and personal conversation. The researchers found that employees with disabilities tended to interact more with the employment specialists than with fellow employees. These interactions involved receiving instruction and compliments more frequently than did those interactions involving employees without disabilities. The

employees without disabilities tended to engage more in work and personal conversation with co-workers and they generally had interactions with a greater number of different people than did the employees with disabilities. The researchers also found, however, that the interaction patterns varied widely for each individual employee.

Kuder and Bryen (1991) analyzed the communicative performance of institutionalized persons with mental disabilities. Ten residents were observed within the institution's academic classrooms and residential living areas. Observations were conducted around lunchtime and after school in the residential living areas. Each subject was observed twenty times in total over an evenly distributed period. As with the Abbeduto and Rosenberg study (1980), meal time was chosen as the setting in which to collect this type of data. In Kuder and Bryen's study, a total of 3, 476 verbal interactions were observed. They found that 67% occurred in the classroom setting compared to 33% in the residential setting. In the residential setting, more than two-thirds of the verbal interactions were initiated by the subjects. Staff initiated 26% of the conversations, while peers rarely initiated interaction with the subjects.

Initiations were classified as either *encouragers* or *disencouragers*. Encouragers were defined as "an initiation which requires a response from a listener" (p.327). Requests that required a verbal response and social exchanges ("May I have a pencil?"; "Good morning, how are you?") are examples. Disencouragers were defined as initiations which reduced the likelihood of a verbal interaction. Direct orders and simple reinforcers such as "Good job" are examples. The researchers found that staff and clients used conversational disencouragers twice as often as they used encouragers. Kuder and Bryen also found that responsiveness by staff, subjects and peers was much higher to initiations of the encourager type

Verbal perseverations by adults with mental handicaps were analyzed as possible modes of communicative intent. In a study by Rein and Kernan (1989), twelve individuals employed at the same sheltered workshop were observed while they followed their daily

work routine. Definitions of variables observed included *verbal perseveration* and *not verbal perseveration* as well as initiation, response, interactional, informative, and regulative. Interactional utterances were defined as those used primarily to initiate a social interaction (e.g., You look nice today."). Informative utterances were defined as those which appeared to be used primarily to give or get information (eg., "What time is it?"). Regulative utterances were defined as those used to control another's behavior (e.g., "Shut up.").

Of 6,497 utterances, 16% were noted to be verbal perseverations. The bulk of verbal perseverations and not verbal perseverations were classified as interactional followed by informative and finally regulative. The findings of this study would be useful in subsequent training of staff, so that they might be better aware of and sensitive to the communicative intent of this particular mode of interaction.

The literature concerning adolescent and adult conversational competence suggests that individuals with mental disabilities are able to participate in conversation but may take on a passive role that is dependent on the communicative style of their conversational partners. Intervention in this area has achieved success in improving the expressive language abilities of these individuals. Further research in this area within the subjects' natural setting has been recommended.

Summary

The issue of quality of life for citizens who are mentally disabled has focused in part on least restrictive living environments and standard of care. The move toward community-based residential placements has placed an obligation on the part of caregivers to enhance the social and communicative competence of their clients in order to facilitate their integration into society. Research in the area of communicative interaction has focused on children, whose language is considered emergent, and on adolescents and adults, whose conversational abilities may be deficient. It has been established that the communicative intent or speech act employed by the speaker may affect the subsequent

conversational exchange between speaker and listener. What is not yet clear is whether literature focusing on parent-child interaction may be generalized to the adult population who have mental disabilities. For instance, turntaking has been identified as an integral aspect of functional communication and is actively taught to children to help to facilitate their communicative skills. In training workshops, parents are also encouraged to employ less directive and questioning type behavior when interacting with their children. If such practices are to be implemented in the adult population, and the child literature is indeed generalizable, then it may be sufficient to examine child studies and train residential or vocational staff accordingly. As it stands, however, there is insufficient evidence to support an assertion that the mother-child dyad model is similar in all respects to the caregiver-client model typically found in community-based facilities. Studies which have analyzed adult communication patterns have for the most part failed to track and then characterize the naturally occurring conversational turntaking patterns of staff and resident as well as the possible effect of caregiver speech.

In response to the need for research in the area of adult-caregiver communication patterns, the present study characterized naturally occurring communicative interaction between staff and residents in a community-based home for adults with mental handicaps. Maintenance of interaction through turntaking was chosen as a variable because it was considered an index of conversational quality (MacDonald, 1985). The other variables defined in the present study were similar to Kenefick's classification system of speech acts (1986), and the method of description employed here (summing total and providing proportions) is the same as Kuder and Bryen's (1991) and Rein and Kernan's (1989). As with other studies (e.g., Abbeduto & Rosenberg, 1980) the meal time event served as the subsetting in which data was collected.

The research presented here examined features of adult language patterns. Results, though limited, are expected to provide insight into the function of the speech act with regard to conversational maintenance in the adult population of persons with mental

disabilities. It is also of interest to note whether results from studies which have focused on child-adult interactions may be generalized to the population currently studied. This initial study is meant to broaden the existing literature on adults with mental disabilities and thus help to define their strengths and needs. It is expected that with a better understanding of the complex nature of adult communicative interaction, specific objectives for the facilitation of appropriate communication skills may be implemented in existing group homes.

The following chapter describes the rationale for the present study and outlines the specific research questions.

Chapter III

Rationale and Research Questions

Rationale

As reported in the previous chapters, the emphasis on language and communication development has begun to focus on the pragmatic aspect of discourse and the context in which social interaction occurs. It appears that characteristics of pragmatic analysis which include percentage of utterances, types of initiation and maintenance of conversation through turntaking have typically been analyzed within the dimensions of the dyad, usually involving mother and child. There appears to be a dearth of research analyzing group interactions through measures of turntaking, particularly with the adult population. The rationale supporting this type of analysis is clear given the current status of adults with mental handicaps who are typically housed within the community in group homes. For this population, the literature has suggested that functional and pragmatic language skills are associated with the ability to maintain social interactions, thus promoting community integration.

With this in mind, it is the intention of this study to characterize patterns of communication within a single group home between residents and staff. This characterization is meant to describe chosen variables within the discourse under naturally occurring conditions. Operational definitions are presented below, followed by the specific research questions.

Operational Definitions

Interaction: The conversational behavior between a minimum of two subjects and a maximum of six subjects. Interactions began with an initiation of a topic and were considered to have terminated after 5 seconds of no-verbal behavior or upon topic change.

Speech Act: For the purpose of this study, speech acts employed by subjects were classified using four major categories. They were:

1. *Declaratives*: A use of language describing the speaker's world and their interactions with it. Declarative speech acts are designed to report facts, state rules, convey attitudes or supply solicited information to a prior requestive act (e.g., "I had a good day today."; "I'm not feeling very well.").

2. *Directives*: Utterances soliciting information from the listener and including questions and requests for action. Giving orders, advice, or recommendations constitute direction. The process of placing constraints on conversational partner may be direct such as when giving a command, or indirect such as asking "What should you be doing now?", since both are meant to move the listener toward the goals of the speaker. For the purposes of this study, the category "directives" was divided into two distinct categories, *directive-questions*, and *directive-commands* . Examples of directive-questions include, "How was your day today?" and "Do you think it will rain?". Examples of a directive-commands include, "Please pass the salt" and "Don't say that!". The distinguishing feature between a directive-question and a directive-command is that the directive-command implores the listener to more immediate action.

3. *Volitives*: Utterances which were intended to praise or criticize (e.g., "Good job with the dishes tonight!").

4. *Unknown*: This category included those utterances not readily coded into the other three. These refer to utterances which were not audible to the researcher and therefore could not be classified.

Utterance: A verbal expression that may have initiated a conversation or acted as a response. An utterance may be expressed in isolation and does not require a response. Certain utterances were ignored and not included within the analysis. These included, singing, animal sounds, and laughing. Acknowledgments however such as "mmhmm" that occurred in response to a previous utterance were labelled as either directive or

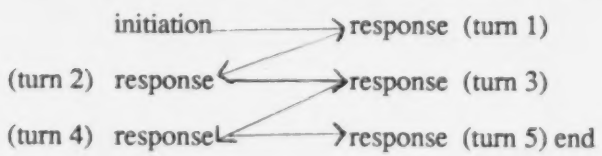
declarative depending on the intonation. Utterances that contained two forms of speech such as " I went to the store today, you know the 7-11?" were coded according to the last form of speech uttered. In the previous example then, this utterance would be considered a *directive-question.*

Initiation: A novel verbal utterance expressed by a subject and not apparently elicited by the topic of a previous utterance.

Turn: A turn was considered to be any verbal behavior which was directly in response to another person or was initiating contact with a person, followed by a similar behavior from a responding person. In ordered to be considered "verbal," an audible production of an intelligible word must have been heard.

Turntaking Chain: A turntaking chain was a connection of topic related turns separated by fewer than 5 seconds.

Number of Turns: Responsive utterances which occurred simultaneously and were topic related were counted as separate turns. The length of the turntaking interaction was determined by counting the number of successive turns chained together that related to the initial topic. For example, the turntaking length of the sequence below is five turns:



The following were not considered part of the turn chain following a specific initiation.

1. An utterance which was socially or linguistically unrelated to the topic of conversation.

2. An utterance which was related to the topic of conversation but which occurs after a period of 5 seconds where no related topic utterance has occurred. This delayed topic-related utterance would then be considered a new initiation. (McCarthy, 1986)

Research Questions

Observational data was collected via a videotape. In order to gain information concerning active and passive roles in group conversation. The percentage of total utterances and initiations were calculated for each subject.

Research Question #1

What percentage of utterances was contributed by each subject?

Research Question #2

What percentage of initiations was contributed by each subject ?

The communicative intent of each utterance and initiation was of interest to the primary researcher since it has been identified as an integral aspect of functional communication.

Research Question #3

3 a) What percentage of each speech act (declarative, directive-question, directive-command, volitive) was employed when initiating conversation?

3 b) What percentage of each speech act was employed in total utterances?

3 c) What percentage of each speech act was employed by each subject?

Conversational maintenance has been identified as an indicator of social interactive skill. Number of turns were counted within single interactions as a means of analyzing the quality of conversation following initiations.

Research Question #4

4 a) What was the average number of turns in a turntaking chain following each initiating speech act?

4 b) What was the average number of turns in a turntaking chain following resident initiations?

4 c) What was the average number of turns in a turntaking chain following staff initiations?

4 d) What was the average number of turns in a turntaking chain following each subjects' initiations?

A percentage of initiations which did not receive any response was calculated for all subjects in order to characterize the typical pattern of nonresponsiveness to initiations made by residents and staff members.

Research Question #5

What percentage of initiations did not receive any response for each subject?

A description of the methodology used to answer these questions will now be presented.

Chapter IV

Methodology

Participant Selection

Four group home residents and two group home staff members acted as participants in this study. The participants were recruited through contact with community agency administrators in a major metropolitan city in Western Canada. The agency and group home were chosen because of ease of accessibility and cooperation of agency administration. The selected group home served only those residents who had been identified as having mild to moderate mental disabilities. Selection criteria were as follows.

1. The residents must have lived at the selected group home for a period of at least three months prior to the implementation of the study.

2. The residents must be identified as hearing and have a spontaneous conversation length of at least three words as determined anecdotally by group home staff.

3. The staff members must have been employed and working within the selected group home for a period of at least three months prior to the implementation of the study.

Initial contact with the participants was made by the agency's director of residential services. At that time, a very general description of the purpose and time frame of the study were presented. A follow-up meeting with the principle researcher and group home staff provided more in-depth information. Staff were specifically informed that the study involved an analysis of interactions within a group home setting. At that time, consent forms were provided for both staff members and guardians of the residents (see Appendix I). A second meeting was then held with the residents of the group home. They were informed that the researcher was interested in finding out "what it was like to live in a home such as their's." They were also told that they would be video-taped, and were allowed to

manipulate the camera for a short period of time. All residents were verbally informed that they may request that filming be stopped at any time. A fifth resident who did not meet the subject criteria was present during data collection but was not included in the analysis. As well, any vocalizations made toward this resident (which were negligible in frequency) were not used in the analysis. A sixth resident of the group home was away from the house during periods of data collection. Table 1 lists the specific characteristics of the participants.

Insert Table 1 about here

Participating Residents

The participating residents ranged in age from 30 to 40 years at the initiation of the study. One of the participating residents was diagnosed as having a profound unilateral hearing loss and used a hearing aid. Staff indicated, however, that the resident could hear and respond to conversational speech adequately which was anecdotally verified by the primary researcher.

Participating Staff

Staff 1 had been working at the group home approximately 1 year at the time of the data collection. She held a Bachelor of Science degree in psychology and had experience working in the child care area. Staff 2 had been working at the group home approximately 14 months at the time of data collection and served as the manager of the residence. He held a Bachelor of Theology degree in counselling and psychology and had worked with this particular agency for about 8 years.

Table 1

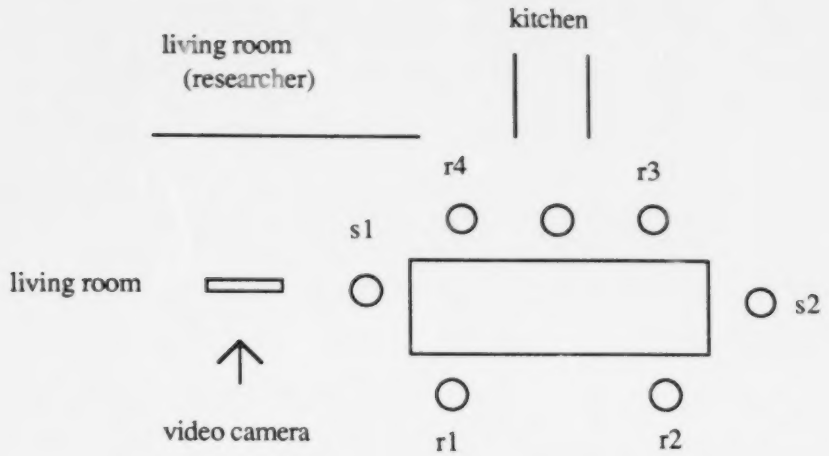
Participant Resident and Staff Characteristics

Subject	CA/years	Gender	Primary Handicap	Secondary Handicap
Staff				
S1	23	Female	None	None
S2	39	Male	None	None
Residents				
R1	40	Male	Mental Handicap	Legally blind
R2	30	Male	Mental Handicap	Slight stutter
R3	31	Male	Mental Handicap (Down syndrome)	Profound sensori-neural hearing loss in left ear/stutter
R4	32	Male	Mental Handicap (Down syndrome)	None

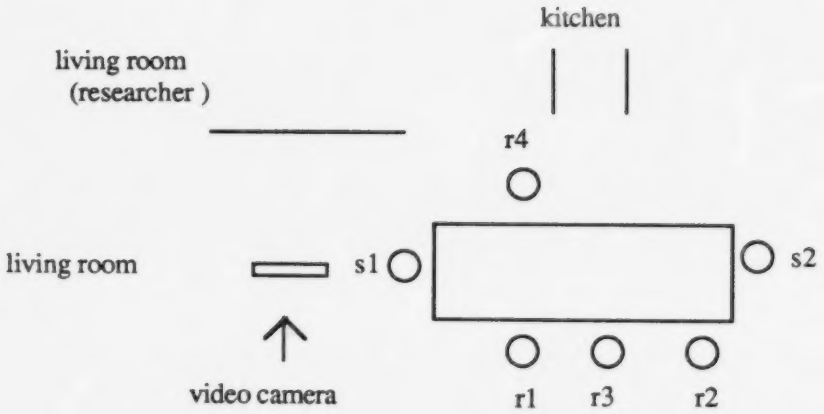
Setting

In order to provide a representative characterization of this group's interactional patterns, all subjects were observed in the residential home for a period of five days within a specified subsetting. The group home itself was located in a residential neighborhood and it was not obvious from the exterior that it was operated by an agency. Each resident had his own room and could move about the home freely. On the main floor was the kitchen, a family room, and a dining /living room which served as the subsetting for the data collection. Subjects were video-taped while seated at the dining room table during the evening meal. Each session typically lasted about 40 minutes. This subsetting was chosen because it was judged to be the setting most familiar and least restrictive for the participants thus presumably evoking the most natural language environment. Data was collected through the entire meal, though occasionally a subject would move from the table to the adjacent kitchen in order to answer the phone or get an item. Only interactions that occurred when the entire group were seated, however, were analyzed. This was done in order to maintain the consistency of conditions across the five day period and hence lessen the threat to internal validity. Figure 1 describes the seating plans during the data collection period. It represents two seating plans where one of the participants has changed his seating places on separate days. The staff members were seated at opposite ends of the table and the videocamera was held stationary on a tripod facing the group. The kitchen could be entered though an open doorway which is adjacent to the dining area. The living area surrounded the dining room, however, a portion of it was out of sight of persons seated at the supper table.

Insert Figure 1 about here



Day 1, Day 4, Day 5



Day 2, Day 3

Figure 1.

Seating plan during data collection.

Habituation Period

Subjects were initially video-taped throughout the home by the researcher for a period of 6 days with each session lasting approximately 4 hours. This initial habituation period preceded the data collection period by approximately 1 month. Both staff were instructed to ignore the primary researcher while data collection was taking place and endeavored to do so. During the periods when the videocamera was turned off, the staff members and the primary researcher chatted informally about the house schedule or general items of interest. The residents and staff were welcoming of the researcher and video equipment and spoke with the researcher before and after data collection was taking place. If the residents referred to the researcher or camera during data collection, the researcher responded minimally and the residents were then redirected by staff members. This contact by the residents occurred minimally however, after the habituation period. During the habituation and data collection periods, certain observations were made. Resident 1 appeared to be the more dominant of the four residents in that most of his requests or demands were accomodated by staff and other residents. Resident 2 appeared the most articulate and commented on a wide variety of experiences. Resident 3 was particularly interested in the videocamera and sought to remain in its view during the habituation period which took place in various parts of the house. Resident 4 typically limited his conversation to programs on the television. All of the subjects appeared comfortable with the presence of the researcher.

Data Collection and Characterization of Observations

This investigation employed direct observation of verbal interaction through the use of a visible videocamera held stationary on a tripod. Data collection sessions occurred with the researcher sitting out of the sight of the subjects in either the living room (see Figure 1) or in another part of the house. The subjects however were aware and interacted briefly with the researcher during the set up and dismantling of the equipment during each session.

For the purpose of this study, speech acts initiated by all subjects were classified using five major categories devised by the principle researcher but based the system employed by Kenefick (1986). The common themes emerging from other literature on speech acts classification, it was felt, lent themselves to these five mutually exclusive categories: (a) declaratives; (b) directive-questions; (c) directive-commands; (d) volitives; and (e) unknown.

It was of interest to the researcher to describe the possible relationship between type of initiating speech as per the categories previously discussed, and the subsequent length of the turntaking chain. Therefore, responses characterized in this study included the number of turns taken within a single interaction and following an initiation.

Scoring of interaction was done via videotapes in order to provide repeated opportunities to view each session. This use of videotape was deemed desirable because of the complex nature of the interactions. The coding sheet was developed through consultation with David Baine (1992, personal communication). A sample of the coding sheet is presented in Figure 2.

Insert Figure 2 about here

Subjects involved are presented across the columns and numbered. Each row represents an interval between responses. Therefore what has been labeled Dir $(?)^1$ is a response made subsequently to what has been labeled Δ Dec and ΔDir (comm). However, the responses Dir $(?)^1$ and Dec^1 were observed to occur simultaneously. The arrows represent the direction of the interaction by topic, and the numbers in superscript count the turns. The character Δ indicates an initiation, and a full circle indicates a topic termination and hence the termination of a topic centered interaction. The coding sheet allowed the researcher to take note of several separate conversations that occurred simultaneously and

DATE:_____ Pg._____

Δ- Initiation
Ø-Termination of turn
ΔØ- Initiation with no response

Dec-Declarative
Dir (?)- Directive/question
Dir (comm)- Directive/command
Unk-Unknown
Vol-Volitive

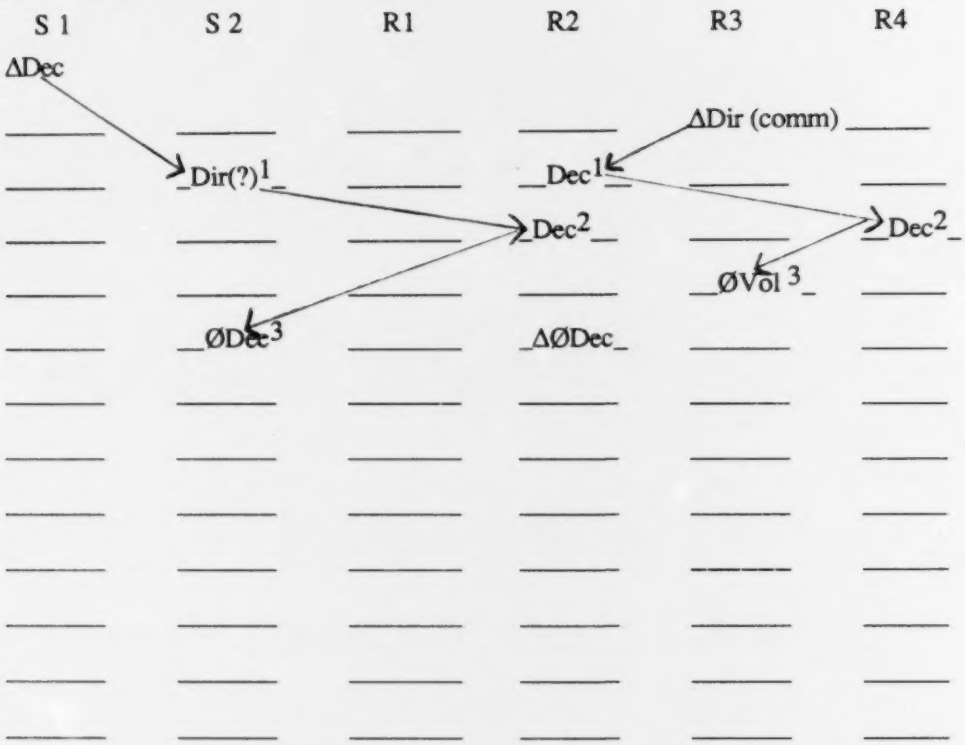


Figure 2.

Sample collection and coding form.

code them according to the criteria previously mentioned. Initiations which received no topic-appropriate response following a 5 second interval, are represented as ΔØ.

The coding process involved a review of the videotapes by the primary researcher where the camera was connected to a television set and the sessions were played on a large screen. Using a remote control the researcher was able to replay the taped interactions several times in order to denote the specific speakers and variables. Each session was coded separately until all of the tapes had been transcribed. At that time the data was summed across sessions and percentages for each research question were calculated.

Interobserver Agreement

In order to estimate the error associated with the observations of the primary researcher, a co-observer analyzed a portion of the data. Using a random selection procedure, 20% of the video-taped sessions were chosen for independent analysis. Prior to the independent re-coding of the tapes, the primary researcher trained the co-observer using data not selected. The primary researcher then compared the findings of the co-observer to the original data. The results are presented in Appendix III. Agreement reached 99 % on number of utterances observed and 96% on number of initiations observed. Agreement was also very high with regard to classification of speech acts. There was a moderate discrepancy between raters on average number of turns observed, following initial speech acts. This discrepancy is likely because the operational definition for what constituted a topic change, and hence the termination of a turn chain, was not clear.

Caution must be observed when interpreting these results. Interobserver agreement was calculated according to total numbers of utterances, initiations, and speech acts. Number of turns following initiations were calculated by averaging the total number of turns observed (see Table 2 for method). Therefore, agreement was not based on individual observation of each variable but rather on summed totals and averages.

External Validity

According to Smith and Glass (1987), external validity refers to the inference that the "effect observed in the experiment would also be observed in broader contexts" (p.144). Within the context of the research undertaken here, possible threats to external validity include: lack of random selection, non-comparability threat, demand characteristics, and novelty effect. A discussion of each possible threat to conclusions drawn from this study now follows.

Random Selection: If a researcher has utilized a random selection method of drawing a sample from a particular population, then statistical and probability arguments can be used to infer from the findings of the sample. Characteristics of the sample are also subject to limitations if the sample has been chosen by non-random methods. The sample chosen in this study was chosen for its convenient accessibility. Using the participant information described previously, it will be a matter of judgement for the reader to decide how similar this sample is to the target population.

Non-comparability Threat: The lack of comparability between the sample or accessible population and the target population denotes a non-comparability threat. The staff used in this study have both received post-secondary education and have previously worked in an aspect of the human care profession. The residents in the study are heterogeneous in background and presentation of disability. They are, however, all involved in various vocational placements and recreational activities provided for this population within the selected city. Therefore all subjects were considered in general, to be adequately representative of staff and residents that may be identified within the broader population of individuals living or working in community residences for adults with mild to moderate disabilities.

Demand Characteristics: The results of the study are in danger of being distorted if the subjects ascertain what the purpose of the study entails and react accordingly. The subjects in this study were informed that the researcher was interested in general

communication patterns within group homes. No mention was made of speech acts, initiations, amount of interaction, percentage of interaction, or turntaking.

Novelty Effect: The novelty effect is similar to the demand characteristics in that it implies that the subject is reacting to the presence of novel stimulation in the environment rather than naturally occurring variables. This is considered a valid threat to the study which is why a habituation period was designed. Particularly, staff were believed to be most vulnerable to this effect, as observed by the researcher.

The following chapter presents the results of the study.

Chapter V

Results

The results are reported in terms of the five main research questions: (a) number and percentage of total utterances by each subject ; (b) number and percentage of total initiations; (c) type of speech act employed in utterances and initiations; (d) number of turns in a turntaking chain following each type of speech act; and (e) proportion of initiations for each subject which received no response. All results were summed over the 5 days of data collection. The findings from this study are represented in graph form. Specific methods of calculation for each research question will be discussed within each section.

Research Question #1

The first question in this study concerned the percentage of total utterances that was observed for each subject. Calculation of the total number of utterances was done by simply counting the number of times an utterance was vocalized by the subjects. These included utterances which were audible but unintelligible. Percentages were then calculated by counting each subjects' contributions to the discourse in its entirety over the five sessions of observation, dividing that number by the total, and multiplying by 100. A total of 1,065 utterances were observed. Of this total, 341 (32%) were contributed by Staff number 1 (S1), 238 (22%) by Staff number 2 (S2), 121 (11%) by Resident number 1 (R1), 198 (19%) by Resident number 2 (R2), 56 (5%) by Resident number 3 (R3) and 110 (10%) by Resident number 4 (R4). Hence, of the total number of conversational contributions by six people, the two staff members accounted for approximately 54% of the total utterances, while the four residents accounted for approximately 46% of the total utterances (see Figure 3).

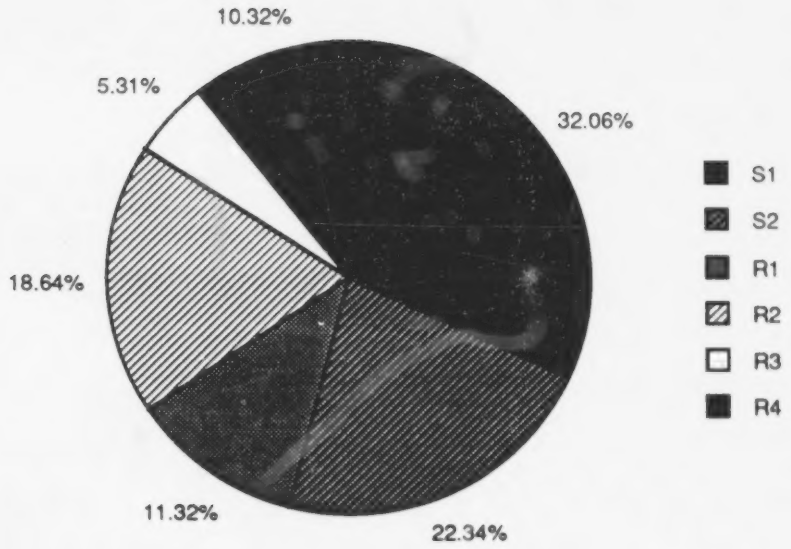


Figure 3.

Percentage of utterances contributed by subjects.

Insert Figure 3 about here

Research Question #2

The percentage of initiations contributed by each subject is represented in Figure 4. It appears that Staff 1 and Resident 2 contributed the majority of initiations (62%) while Staff 2 and Residents 1, 3 and 4 initiated new topics of conversation less often. Residents 3 and 4 in particular were observed to have accounted for the fewest initiating topics of conversation.

Insert Figure 4 about here

Research Question #3a

A third question addressed the type of speech act employed when subjects initiated conversations. In order to answer this question, initiations were coded according to the previously mentioned criteria. The total number of initiations was then counted and a percentage of each speech act used was calculated. Data addressing this question are found in Figure 5. Of 210 initiations in total, 103 (49%) were classified as declarative, 54 (26%) were classified as directive-questions, and 35 (17%) were classified as directive-commands. There were 18 (8%) initiations that were deemed unintelligible, and no initiations were classified as volitive in nature. Therefore no subject initiated a conversation using praise or criticism.

Insert Figure 5 about here

Research Questions #3b and #3c

In order to characterize nature of the speech act employed during conversation, percentages were calculated for type of speech act used in total utterances, and type of speech act typically used by each subject. Results are presented in Figure 6 and Table 2. Of 1065 utterances in total, 720 (68%) were declarative in nature, 242 (28%) were directive-question in nature, 64 (6%) were directive-command in nature, and 37 (3%) were classified as unknown. Only 2 of 1065 total utterances could be classified as volatile (see Figure 6).

Insert Figure 6 about here

Table 2 represents the breakdown of each category of speech act for each subject. Percentages here are of the speech act, not of utterances in total. For instance, row five describes the breakdown of utterances which could not be classified. Hence, of 3% of utterances which could not be classified (as previously noted) 32 % were by Resident 2.

As can be seen, the speech acts used most often by all subjects were declaratives and directive-questions. The two staff members and one resident employed virtually all of the directive-commands observed, and only one subject, a staff member, uttered a volitive. Residents 1, 2, and 3, used a variable number of declaratives and directive-questions, and Resident 4 used almost 4 times as many declaratives as directive-questions. Staff 1 and 2 both used slightly more directive-questions than declaratives. The speech of Staff 1 was almost entirely codable, but a portion of Staff 2's speech was unclassifiable.

Insert Table 2 about here

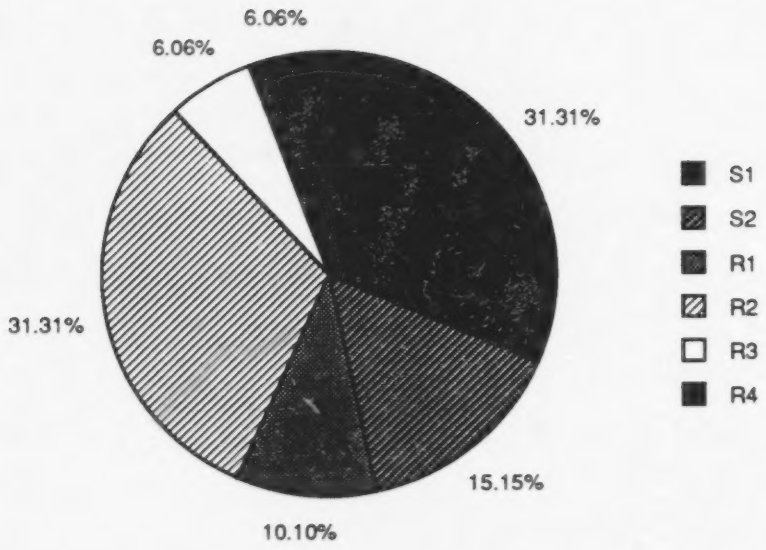


Figure 4.

Percentage of initiations contributed by each subject.

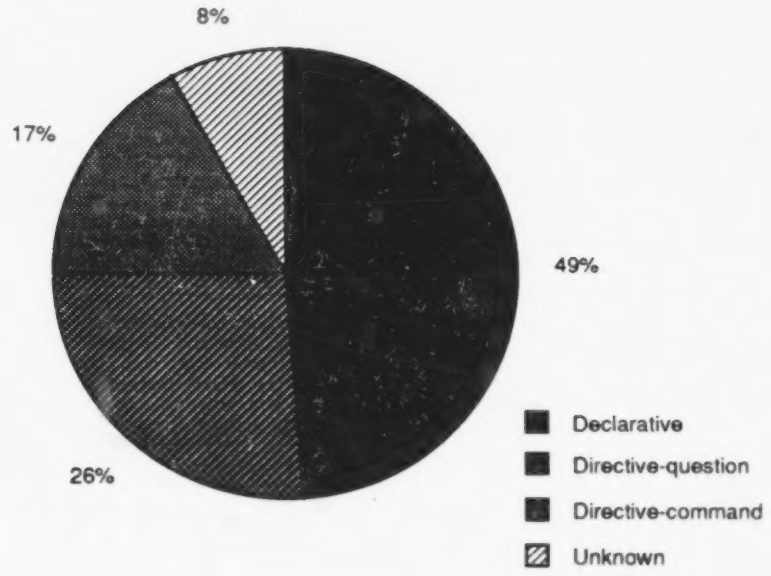


Figure 5.

Speech act used when initiating conversation.

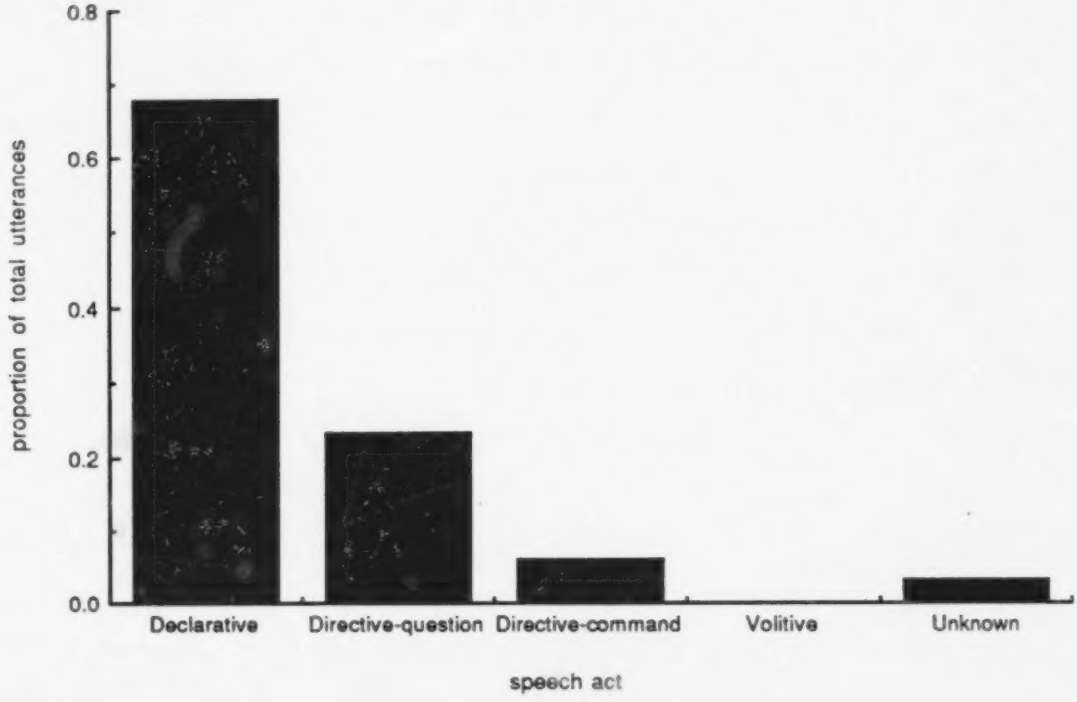


Figure 6.

Proportion of speech acts used in total utterances.

Table 2

Percentage of Each Speech Act Used by Subjects in Total Conversation

Speech Act	S1	S2	R1	R2	R3	R4
Declarative	29%	20%	17%	19%	5%	13%
Directive-question	41%	27%	9%	16%	2%	3%
Directive-command	36%	26%	22%	6%	1%	7%
Volitive	1%	0	0	0	0	0
Unknown	3%	22%	3%	32%	29%	11%

Method of Calculating Number of Turns Following Each Type of Initiation

A third factor in this study involved maintenance of conversational discourse. To characterize this, the total number of turns in a turntaking chain following each type of initial speech act and subject was calculated. That number was then divided by the number of initiations using the same speech act. Table 3 provides an example. Each separate initiation is followed by a number of turns within a topic centered turntaking chain. For instance, initiation 1 was followed by 3 turns and initiation 4 was followed by 14 turns. The sum of turns over the total number of initiations yielded a mean length of turn following declarative initiations. In this case, the average number of turns was 7.0.

Insert Table 3 about here

Research Question #4a

Figure 7 represents these results. The data suggests that an average of 3.88 turns followed a declarative type of initiation, an average of 5.35 turns followed a directive-question type of initiation, and an average of 2.05 turns followed a directive-command type of initiation.

Insert Figure 7 about here

Research Questions #4b and 4c

The average number of turns was calculated following staff initiations and resident initiations, using the same method described in Table 2. A total of 38 initiations were contributed by the two staff members, with subsequent turns totalling number 335. A total of 112 initiations were contributed by the four residents, with subsequent turns totalling 429. The average number of turns following staff initiations was 3.41, the average number turns following resident initiations was 3.83.

Table 3

Example of Method for Calculating Average Turn Length

Declarative Initiation	Number of Turns
1	3
2	7
3	4
4	14

Total number of initiations-4
Total number of turns-28
Average number of turns following declarative initiation = 28/4 = 7.0

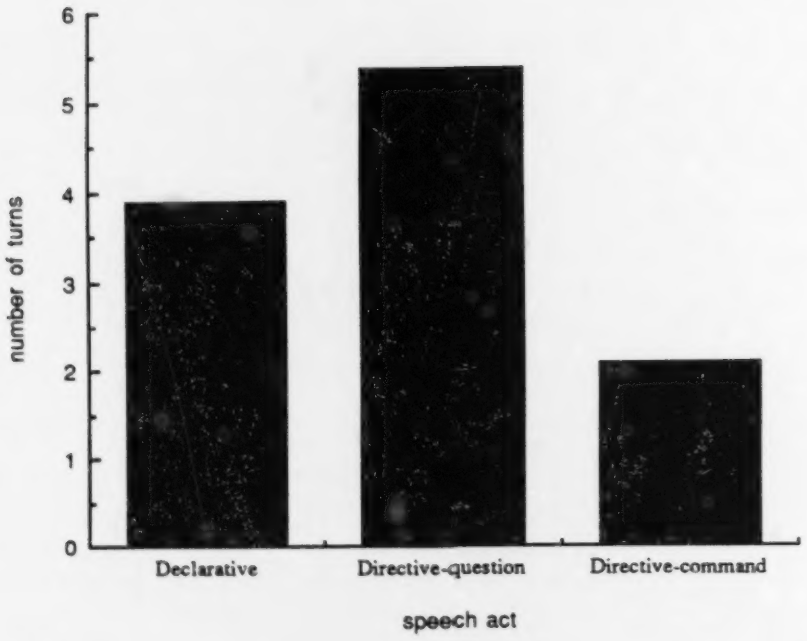


Figure 7.

Average number of turns following each type of initiation.

Research Question #4d

Results noted previously, demonstrated approximately equal lengths of conversation following staff and resident initiations. It was then of interest to know whether a breakdown of turn number following each subject's initiations would result in more variability. The results of this analysis are presented in Figure 8. The analysis suggested that the average number of turns following initiations by 1 staff and 2 residents were again approximately equal. It is interesting to note that these turn chains (approximately 3.5 in number) are similar in quantity to those found for the resident and staff grouped results. A slightly lower number of turns was observed for Resident 4, and a slightly higher number of turns was observed for Resident 3.

Insert Figure 8 about here

Research Question #5

Finally, it was believed that calculating a mean number of turns to obtain an index of conversational quality did not fully interpret the data. There were a number of initiations by all subjects which did not receive a topic related response within 5 seconds. The researcher was interested in knowing if the proportion of initiations which were either ignored or not heard was higher for any particular subject or group of subjects. The results are presented in Figure 9.

Insert Figure 9 about here

Staff 1 had the highest number of initiations (66) followed by Resident 2 (58), Staff 2 (30), Resident 1(21), Resident 4, (10) and Resident 3(9). Though Staff 1 and Resident 2 had almost the same number of initiations, Staff 1 was not responded to about 35% of the

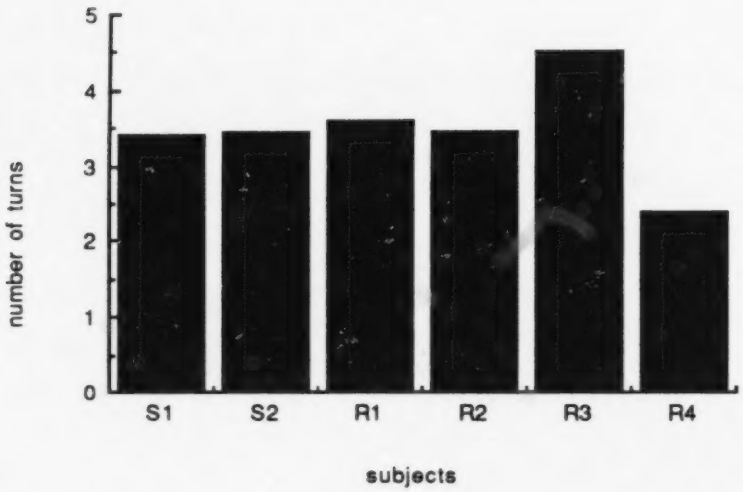


Figure 8.

Number of turns following each subjects' initiations.

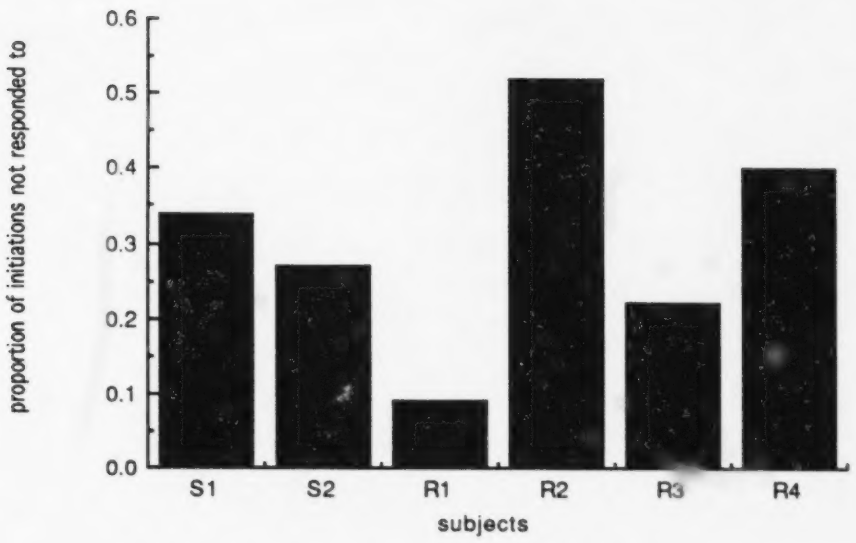


Figure 9.

Proportion of each subjects' initiations which received no response.

time while Resident 2 was not responded to about half of the time. Resident 1 had the lowest number of initiations which did not garner a response. Proportionately it appears that Resident 3 and Resident 4 were either ignored or were not heard at least 20% percent of the time, however the relatively few initiations produced by the two residents must be kept in mind when interpreting the data.

The findings presented above are discussed in the following chapter. Specifically, method of data collection and classification, analysis of results, limitations of the study, relevance to current literature, and possible implications for staff training are outlined. As well, recommendations are made with regard to further research in this area.

Chapter VI

Discussion

Kuder and Bryen (1991), have complained that many studies have focused primarily on the role of *staff* in conversational interaction, while either ignoring client initiations, or giving them only cursory attention . Using direct observation, this study described existing communication patterns between staff and residents in a group home setting. Subject participation within the interaction, type of speech employed, and number of turns following initial speech acts were analyzed. The discussion chapter is divided into five sections: method of data collection and classification; participation in group discussion; speech acts used in total utterances; speech acts used in total initiations; conversational maintenance; comparison to findings pertaining to children; limitations; implications; recommendations; and finally a concluding statement. The discussion is meant to extrapolate and interpret the results of the study so as to provide further information concerning the communicative environments in which persons with mental disabilities and their staff function.

Method of Data Collection and Classification

The classification system of speech acts employed in the present study was adapted from that of Kenefick's (1986). The utility of the categories used here: declaratives, directive-questions, directive-commands, volitives and unknown, will be discussed in terms of ease of coding and precision in representing the subjects' communicative intent.

Operational definitions outlined in chapter three allowed the researcher to code the subjects' utterances relatively easily. The category of directive-question was perhaps the most clearly differentiated speech act since it could be identified by virtue of a "Wh" at the beginning of the utterance, or an upwards inflection at the end. There was the potential for more difficulty in distinguishing between a directive-command and a declarative. For example "I want you to do your homework tonight" could be interpreted as either a

declarative or command depending on the tone of voice used. A harsh tone might suggest a command, whereas a softer conversational tone could merely indicate a statement of fact.

A classification system with a larger number of categories would likely have represented the communicative intent of the subjects' utterances more accurately. Recent studies have employed from 2 categories (e.g., Kuder & Bryen, 1991) to 8 categories (e.g., Mahoney, 1988) depending on the research hypotheses. In the present study, the categories were determined to be sufficient to answer research questions with the exception of the acts defined as volitives. It should be noted that though Kenefick (1986) observed "volitives" in interactions between staff and staff, and staff and residents, her definition was broader than the one used in the present study. More specifically, volitives in the Kenefick study were categorized as expressing wishes, preferences, likes and dislikes as well as giving praise or criticism. In the present study, the more narrow definition of giving praise or criticism was used when classifying utterances and initiations as volitives in order to determine in isolation their possible effect on subsequent conversation. The very limited use of volitives in the present study, however, did not allow for an adequate analysis of number of turns following initiations of this type. In response to the finding that volitives were employed relatively rarely by all of the subjects, future researchers may want to define the speech act more broadly. Research in a setting more conducive to simple praise and criticism (e.g., vocational work place) may also provide more information on the use and possible consequences of a volitive.

Though the relative quantity of utterances which were classified as "unknown" was small, the placing of the videotape recorder likely contributed to the inaudibility of such utterances. That being the case, the placing of the videocamera is worthy of further discussion. The video camera must be placed in such a way that it is not intrusive or disruptive to the natural setting, however, it must be close enough to record the relevant information. In the present study, the videocamera was approximately four feet from Staff 1 and pointing toward the back of her head, and approximately nine feet from Staff 2 who

was seated at the opposite end of the table from Staff 1 (see Figure 1 for more detail). In future research, the videotape recorder should be placed in such a way that it would act as a "subject" and hence data collected could reasonably be inferred to be the same information received by the subjects under investigation. Therefore, if an utterance is inaudible on the video camera, one might suggest that indeed the speaker vocalized either very softly or inarticulately and the utterance was inaudible to the participating subjects. If that same inarticulated utterance is not responded to, the researcher may infer that it is a function of the audibility of the utterance. If the video camera is not placed in the same position as the subjects under investigation, then that conclusion cannot be made since one could suggest that it was only the videotape which did not pick up the utterance, and not a conversational participant. Likely a better placement of the videocamera would have been toward the middle of the table, perhaps behind the heads of Resident 1 and Resident 2 (see Figure 1).

The coding of the video tapes was completed via a data collection sheet which was developed for the purposes of this study. The method outlined in the previous chapters of recording the observed data lent itself to a comprehensive and precise method of transcribing simultaneous discourse between conversational partners of more than two. This convenient and simple mode of transcription allowed the primary researcher to study a complex verbal exchange unique to the atmosphere of group discussion. In opposition to simple dyadic communication, maintenance of topics under these types of conditions are dependent on the contributions of any one of 6 individuals. This being the case, typical utilization of a pragmatic dyadic protocol (e.g., Prutting and Kirchner, 1987) would have to be amended to accommodate the natural flow of group conversation. Although such a protocol was not utilized in this particular study, future research should note that the natural living conditions of many adults precludes the use a protocol which measures two partner interactions. It appears that such protocols would not represent accurately the dynamic and unique group conversation atmosphere which appears to deviate significantly from the

mother-child or caregiver-client paired model traditionally studied. Further research is required on the validity and reliability of the protocol developed for this study.

Participation in Group Discussion

Research questions 1 and 2 addressed the number of utterances and initiations that were accounted for by each subject. It was demonstrated that conversational utterances, that is the percentage of verbal speech each subject contributed to the discourse, varied in number within the group observed. The two staff members accounted for over half the contributions, while three of the residents jointly contributed to only about one-fourth of the exchange. One resident in particular, identified as Resident 2, had the highest percentage of resident utterances (18%), which were for the most part audible and understandable. Previous studies have indicated that persons with mental disabilities rarely take the dominant role in conversations (Abbeduto and Rosenberg, 1980; Bedrosian and Prutting, 1978). The findings in the present study suggest, that individual data may reveal conversational parity between particular handicapped and non-handicapped conversational partners. On average, however, persons with mental handicaps may tend to take a more passive role in group discourse which includes non-handicapped staff. Whether this passivity holds true during peer-peer interactions remains to be seen. It would be beneficial to study whether individual residents who take a passive role in communication with staff, conversely take an active role in communication with peers. If this dual type of role was found to be the case, variables related to each context may be better identified.

As well as total utterances, percentages of conversational initiations were calculated for staff and resident subjects. The two residents who had the lowest number of conversational utterances, R3 and R4, not surprisingly, were also observed to have the lowest number of conversational initiations. R3 had been diagnosed with a speech dysfluency (stuttering), and also had a profound hearing loss in one ear. Resident 4 did not present any secondary handicaps. Both were identified as having Down syndrome. As well, both of these subjects were seated next to a staff member for the greater part of the

data collection period (see Figure 1). One could speculate as to why certain group members consistently contribute markedly less to conversational discourse. History of subjects, reactiveness to the data collections conditions and researcher may account for a portion of the variance; however, only experimental intervention may allow for a functional assessment of the conditions under which these and the other subjects respond. Resident 4, who had the lowest rate of utterances and initiations observed in the study, appeared to function adequately in one-on-one interactions with the primary researcher, staff members, and peers in other settings. It may have been that the confined setting of the dinner table facilitated a verbal competitiveness which put the non-assertive speaker at a disadvantage. For instance, among the residents, R2 accounted for the largest number of utterances and initiations and was also informally observed to have a wide repertoire of experiences on which to discuss as well as the loudest voice. It is suggested that the verbal skill of this individual allowed him to dominate the general discussion. This imbalance in conversational contribution may not have been recognized as such by the staff members, and hence there was little redirection of the conversation toward the more passive resident conversants.

It is interesting to note that Resident 2 who shared the highest number of initiations with a staff member, was either ignored or not heard over 50% of the time, while the staff member was not responded to only about 33% of the time. To the researcher, Resident 2 appeared to be the most assertive of the residents and was audible almost all of the time. Despite this verbal assertiveness (or perhaps because of it), Resident 2's conversational partners chose to disregard the majority of his initiations. This resulted in somewhat of a running monologue on the part of Resident 2. This may account for previous findings which described individuals with mental handicaps as participating in collective monologues as opposed to normal conversational turntaking (Abbeduto & Rosenberg, 1980). Conditions under which collective or individual monologues occur are again influenced by the group's history as well as personal and environmental characteristics.

The study of conditions which contribute to exclusion of certain members of group interaction is worthy of further investigation.

Speech Acts Used in Total Utterances

Research question 3 addressed the type of speech act used by each subject in total utterances and initiations. While verbally interacting, the residents for the most part used declaratives with exception of Resident 1 who used mostly declaratives and commands. Staff members used only a slightly higher percentage of questions and commands than they used declaratives. Using meal time as the setting Romski et. al (1989) found a wide variation in the individual use of various speech acts but concluded that the choice of speech act depended on the previous response of the communicative partner. In the present study, the type of speech act used by each subject while conversing varied somewhat. Staff 1 and 2 used more directive questions but only slightly; Resident 1 used more directive-commands than did the other residents, and Resident 2 used mostly declaratives and directive questions. Resident 3 used each speech act approximately an equal number of times, and Resident 4 used a relatively high percentage of declaratives and almost no directives of either type.

Kenefick (1986) found in her study of residentially placed adults that most of the residents' remarks to staff were declarative in nature and were made in response to the orders, requests, and questions of staff. She also found that when residents spoke to one another, about two-thirds of their verbalizations were directive with the remainder largely divided between declaratives and volitives. A full 70% of staff comments to residents were observed to be directive in nature, with the balance divided between volitives and declaratives. This pattern was interpreted by Kenefick (1992, personal communication) as having a negative impact on the staff-resident interactions. Though the breakdown of staff-to-staff communication and resident-to-resident communication was not analyzed in the present study, it is suggested that Kenefick's results are relevant to the findings here. Results from the present study may be significant in that they characterized staff members

as employing directive-questions, but the use of this speech act may have actually encouraged subsequent conversation. This discrepancy may be due to a number of factors. For instance, the workshop format of the residence in Kenefick's study may have been more suited to an atmosphere where demands for action were placed on individuals rather than requests for conversational participation. Also, the subsetting used in the present study may have been less conducive to an atmosphere which encouraged general praise or criticism than would be a place of learning such as an employment or educational setting. This difference in subsetting may then have accounted for the lack of volitives observed here, as opposed to the percentages observed in the Kenefick research.

In the present study, certain individual differences between subjects are worthy of discussion. For instance, Resident 1, who is legally blind was more demanding of the other members of the conversation than were the other residents. This type of information may be useful for staff when deciding which behaviors should be targeted for modification. Since persons with mental handicaps have been previously described as maintaining a conversational passive role, (Bedrosian & Prutting, 1978), facilitating verbal commands may be appropriate under certain conditions, such as waiting for service at a restaurant. In the present case, however, the directive-commands employed by Resident 1 may have impeded conversational interaction with a peer or staff member. Therefore, social discourse may not be the environment in which direct orders or commands are accepted and conversationally built upon. Future study is needed in this area in order to ascertain the propriety of certain speech acts under varying conditions.

Speech Acts Used in Initiations

The pattern of speech acts used in total initiations was similar to the pattern of speech acts used in total utterances. Observational data again revealed an absence of volitives used by any subject when initiating conversation. It must be remembered, however, that what was coded was determined by the speech act used at the end of the phrase or sentence. For instance, the statement "You did a good job today, what are you

doing tonight?" is considered a directive-question, because the response of the listener will likely be to the most recent verbalization heard. Therefore, even though "You did a good job today" is considered a volitive, the addition of "what are you doing tonight?" changes the utterance into a directive-question and that is how it would be coded.

Nearly half of the initiations observed were declarative in nature. This use of declaratives implied that in this particular meal time setting conversations were begun for the most part by individuals discussing matters of interest rather than by questioning or commanding a conversational partner. Directive-questions accounted for about one-fourth of the initiations, and commands about 17%. As recently as 1991, Kuder and Bryen found that most of the initiations during a meal time setting were of the questioning type. Initiations were classified in the present study in order to obtain an index of conversational quality by examining the number of turns which followed initiating speech acts. Therefore the question of how conversations were initiated was only relevant by examining subsequent conversational length. The following section discusses those findings with regard to number of turns taken within a turntaking chain.

Conversational Maintenance

Research question 4 addressed the number of turns following initiations employing each speech act. It appeared that directive-question type initiations preceded a greater number of turns within a turntaking chain than did declaratives or directive-commands. This finding corroborates with Kuder and Bryen's 1991 study which defined a question as a conversational encourager. In the present study, it was also found that directive-commands may have stifled subsequent conversational length since fewer turns were observed following initiations which tended to direct a persons' action. In the Kuder and Bryen study, direct orders and "repeated stock phrases", were defined as "conversational disencouragers" and were similar to directive-commands in this regard. This finding is interesting although results may be confounded by the unequal number of each type of initiation. For instance, Resident 4 had very few initiations compared to Staff 1 and yet the

average turntaking length following Resident 4 is longer than the average turntaking length following Staff 1. Unfortunately data was not available on the number of turns following volitive initiations, which have been previously described as conversational disencouragers by Kuder and Bryen.

Since group turntaking characterization among this population has apparently had limited investigation, it is difficult to compare these results to previous studies and hence interpret their significance. The initial characterization of turntaking among the adult population is worthy of further investigation, however, because the living arrangements of adults with mental handicaps usually involve communal type living, eating, working, and recreating. It would therefore be pragmatic to study the functional responses of this population and their staff within a context suited to their particular circumstances.

Despite some variation in non-responsiveness to particular subjects, the average number of turns in a turntaking chain did not appear to be different following resident initiations and staff initiations. In fact, the average number of turns is almost equal following initiations by both groups. A more detailed analysis indicates similar results. There is only a mild variation in turntaking length following initiations by all subjects. This finding suggests that the social role of the initiating speaker may not be as significant to the subsequent conversational exchange as are other factors. For example, topic of conversation or individual characteristics of the initiator may act as controlling variables in this regard. To identify possible contributing factors to quality of conversational exchange, a qualitative analysis of topics which preceded exchanges of at least 15 turns was undertaken. The initiating topics involved: (a) complaints of pain; (b) discussion of needed bus tickets; (c) descriptions of events that had previously occurred; (d) comments on television programs; (e) comments on television personalities; (f) questions about extra-curricular activities; and (g) opinions about food and restaurants. It is difficult to assert that a common theme is present among these conversational openers. They involve discussion about past, present, and future events, which indicates an understanding of basic time

sequence on the part of all the residents. Further analysis of topic content may provide staff with an indication of the quality and variety of residents' personal experiences. For example, if a resident is continually discussing television programs at supper, a recreational activity outside of the residence may be warranted.

It is clear that through the mode of turntaking, conversation between adults with mild-to-moderate mental handicaps and their non-handicapped caregivers is similar in form to that of non-handicapped conversants. Abbeduto and Rosenberg came to similar conclusions in their 1980 study. What is not yet clear is whether the content and quality of discourse would also be similar in conversations involving individuals who are not handicapped. In order to study this, comparison studies involving non-handicapped populations must be undertaken.

The researcher in the present study observed that conversations which yielded high numbers of turns occasionally took place between the two staff members. It is suggested that the topics shared in this S1-S2-S1 pattern concerned events on which perhaps the residents did not feel adequately versed. As well, it is possible that there were too many conversational turns taken within a brief time interval to allow an interruption by another group member. Abbeduto and Rosenberg (1980) in their analysis speculated as to why third party members may be excluded from triadic group conversation. They stated "the fact that S3 was the participant who was left out in one but not the other group suggests that who is left out may not be determined by stable individual characteristics, but is instead a function of the identities of the other conversational participants" (p.418). The question remains valid if quality of care includes the facilitation of communicative competence in residents with mental disabilities. Staff members in their role must be aware of the effect of their conversational responses on the subsequent communicative behavior of their clients. Again further study into specific conditions involving communicative interaction is needed.

Comparison to Literature Involving Children and Communicative Interaction

A central concern of this study involved the validity of generalizing child-mother models of communicative interaction to adult-caregiver models in the same area. Following is a brief discussion of the characteristics of both models and a comparison of the findings of the present research to child-focused literature.

The individual characteristics of the caregiver is likely of equal importance in both a mother-child dyad and a staff-resident grouping. In his study of mother-child communication, Mahoney (1988) observed a reciprocal exchange where the mother provided the child with a linguistic model while at the same time accommodating her language to the child's present level of functioning. In the present study, the maintenance of verbal exchange across the five sessions implied that staff were centering a good part of the discussion around resident-centered topics. Mahoney has identified this type of accommodation as a means of improving language expression in children. Although this sensitivity on the part of the staff is encouraging, it must be remembered that despite an almost constant verbal exchange, conversational contributions were limited to primarily one or two residents. This being the case, it is suggested that resident-centered topics remain the focus of resident-client interaction, and that staff become sensitive to the expressive needs of all of the resident conversants.

Initiations which employed directive-questions may have elicited longer conversational turns than did initiations which employed both declaratives and commands. This finding is in opposition to previous child-focused studies which asserted that questioning may be a negative factor in language acquisition (Gerrard, 1989; Newhoff & Browning, 1983). If results of the present research are replicated in similar studies, it may be suggested that questioning is used by caregivers to encourage participation from their conversationally delayed partners. This has already been implied by both Mahoney, (1988) and Tannock (1988), in their interpretation of the goal of maternal directives. Specifically, the authors refuted earlier studies which have suggested that questioning elicits diminished

expressive language abilities. It was also found in the present research that directive-commands preceded the least amount of conversational turns. This finding holds with research from previous studies on children's language (Eheart, 1982; Hoff-Ginsburg, 1986), although a direct comparison is difficult to make because of discrepancies in the operational definitions of the various studies. It can at least be stated that Mahoney qualified his interpretation of directives by stating that questions may have facilitated participation, but direct orders for action impeded conversational interaction. These findings are similar to observations made in the present study and subsequent interpretations of directive-questions and directive commands.

Despite some similarities in findings between the child-focused literature and the present study, caution must observed. None of the child research involved group interaction, which was the focus of present study. As well, the obvious age discrepancy and the lack of IQ information on the subjects in the present study may preclude comparisons to the child population. Finally, the emotional and social relationship between mother and child may be of a different quality than the relationship between residential staff and adult client. These possible differences may have variable effects on the responses of the child and adult subjects. For these reasons, further research in needed before conclusions can be made with regard to the two populations.

Limitations of the Study

The limitations of this study include the relatively short habituation and data collection periods. If external validity is to be considered in future research, longer intervals are recommended for the habituation and data collection periods. In the present study, the interval between the habituation period and the data collection period was about 1 month. A shorter interval between these periods in future research will support the effect of the habituation process on the behavior of the subjects during the collection period. There were also difficulties with interobserver reliability on the variable number of turns within a turntaking chain. The lack of an operational definition describing what constituted

a topic change likely resulted in the discrepancy between the findings of the researcher and the findings of the co-observer. A clear operational definition of a topic change should be incorporated into the procedures of future research in this area. It must also be taken into account that these participants may be unique in their responses. Hence the small sample size limited the ability for the research to be generalized to the target population of staff and residents within a group home setting. As well the subsetting used in the present study (meal time) likely contributed significantly to the pattern of conversation observed. Other subsettings within the group home such as a television room or bedroom, might have elicited entirely different patterns of discourse. Seating plans may have also have contributed to the pattern of communication described in the present study. Had subjects been seated adjacent to different members of the group, or if the seating plans changed on a nightly basis, the nature and quality of the conversation might have been altered. Finally, the study is limited with regard to a statistical comparison of turn means. This type of comparison would be prohibited since the sample size is too small to ensure an appropriate inference to the target population.

Implications for Residential Staff

Despite the limitations of the study, implications of the results may be of interest to staff in residential homes for individuals with mental disabilities:

1. Conversation with and between residents should focus and expand on topics which relate to the residents' interests and experiences.

2. Direct commands for performance should be kept to a minimum if the goal is to facilitate conversational interaction.

3. Staff should be aware of conversational passivity and dominance among themselves and the residents. They may then redirect topics or attention as necessary.

4. Staff should examine the content of each residents' topic of conversation. This may allow for an evaluation of the quality of each residents' personal experience as well as promote discussion between the residents and staff.

Recommendations For Future Research

The study of verbal interaction and pragmatic language among the adult population of persons with mental disabilities should be a major focus of research in the future. Literature which characterizes other populations may not necessarily enhance our understanding of adults with unique challenges and needs. This study has characterized the conversational utterances, initiations, and turntaking patterns of staff and residents of a group home for adults with mental disabilities. Further characterization of this population in various natural settings throughout the home and community is recommended. As well, experimental analyses of the communicative conditions under which this population functions best, should be undertaken. Research topics may include:

1. How do para-verbal variables (tone, rhythm and volume of voice; proximity), and non-verbal variables (body language, facial expressions, eye contact) effect the patterns of communication among individuals with mental handicaps and their support staff?

2. What are the patterns of communication for: (a) resident to resident, (b) resident to staff, (c) staff to resident, and (d) staff to staff?

3. The development of a pragmatic protocol appropriate to the analysis of conversational turntaking between members of a group.

4. An experimental intervention to determine the variables controlling conversational interaction under certain conditions.

Concluding Statement

The research presented here is believed to be a valid and thought-provoking contribution to the existing literature on adults with mental disabilities. It is felt that this population has only recently been accorded the civil rights and standard of service it deserves. This is likely because of the pervasive misunderstanding of the cognitive and social abilities of citizens who are differently challenged. Only through research and the subsequent dissemination of information, will society understand and accept the specific

needs and strengths of individuals with mental handicaps. The present study is considered a small step toward that end.

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APPENDICES

APPENDIX I

INFORMED CONSENT FORMS FOR STAFF AND RESIDENTS

INFORMED CONSENT FORM (Guardian of Resident)

Quality of life issues for people who have mental disabilities recognize the need for social interaction and communicative skill development in order to facilitate more enriched and happier lives. As more and more adults are moving from institutional or home life to community living, there exists a need for their instruction to take place within this natural environment by staff or other caregivers.

The purpose of this study is to examine patterns of existing communication between staff and residents in the group home setting. One researcher will passively observe various interactions that take place on a day-to -day period for five consecutive days including one weekend day. Observations will take place approximately between the times of 7:00-9:00 AM and 4:00-10:00 PM on weekdays, and 9:00 AM to 9:00 PM (with breaks) on the weekend day. The naturally occuring events and activities within the group home will not be interrupted by the researcher. Observations will be made through the use of a video-camera. No observations will be recorded while the staff or residents are attending to personal hygiene in bathrooms or bedrooms unless the staff or resident is not involved in bathing, toileting, or dressing. Through the observation and subsequent analysis, names of the participants will be replaced by codes and will be known only to the principle researcher, her advisor, and an assistant. Participation may be withdrawn at any time, and the researcher will be pleased to share the findings at the completion of the project.

The results of this research will be of interest to administrators and staff of group homes and other facilities serving the needs of people who have mental handicaps. The information gathered will likely provide insight into better ways of facilitating the communication skills of their clients.

I have been adequately informed about the nature of the above study.
I_____ (name of guardian) consent to the participation of _____(name of resident) in this study. I understand that he/she may withdraw from the study at any time and that I may request for videotaping to stop at any time du ng the sessions.

_____

Signature of Guardian

_____

Witness

_____

Date

INFORMED CONSENT FORM (Staff Member)

Quality of life issues for people who have mental disabilities recognize the need for social interaction and communicative skill development in order to facilitate more enriched and happier lives. As more and more adults are moving from institutional or home life to community living, there exists a need for their instruction to take place within this natural environment by staff or other caregivers.

The purpose of this study is to examine patterns of existing communication between staff and residents in the group home setting. One researcher will passively observe various interactions that take place on a day -to -day period for five consecutive days. Observations will take place approximately between the times of 7:00-9:00 AM and 4:00-10:00 PM on weekdays, and 9:00 AM to 9:00 PM (with breaks) on the weekend day. The naturally occuring events and activities within the group home will not be interrupted by the researcher. Observations will be made through the use of a video-camera. No observations will be recorded while the staff or residents are attending to personal hygiene in bathrooms or bedrooms unless the staff or resident is not involved in bathing, toileting, or dressing. Through the observation and subsequent analysis, names of the participants will be replaced by codes and will be known only to the principle researcher, her advisor, and an assistant. Participation may be withdrawn at any time, and the researcher will be pleased to share the findings at the completion of the project.

The results of this research will be of interest to administrators and staff of group homes and other facilities serving the needs of people who have mental handicaps. The information gathered will likely provide insight into better ways of facilitating the communication skills of their clients.

I have been adequately informed about the nature of the above study.
I_____ (name of staff member) consent to participate in this study. I understand that I may withdraw from the study at any time and that I may request for videotaping to stop at any time during the sessions.

_____

Signature of Staff Member

_____

Witness

_____

Date

APPENDIX II

COLLECTION AND CODING FORM

Collection and Coding Form

DATE:_____ Pg._____

Δ- Initiation
O-Termination of turn
ΔØ- Initiation with no response

Dec-Declarative speech
Dir (?)- Directive/question
Dir (comm)- Directive/command
Unk-Unknown
Vol-Volitive

Sub 1	Sub 2	Sub 3	Sub 4	Sub 5	Sub 6

APPENDIX III

RESULTS OF INTEROBSERVER AGREEMENT

	Primary Researcher	Co-observer
Utterances	189	191
Initiations	28	26

Percentage of Utterances

S1	54/189 (28%)	54/191 (28%)
S2	39/189 (21%)	38/191 (20%)
R1	33/189 (17%)	32/191 (16%)
R2	35/189 (18%)	33/191 (17%)
R3	7/189 (.04%)	7/191 (.04%)
R4	21/189 (11%)	27/191 (14%)

Percentage of Initiations

S1	6/28 (21%)	3/26 (12%)
S2	3/28 (11%)	4/26 (15%)
R1	6/28 (21%)	6/26 (23%)
R2	12/28 (42%)	10/26 (38%)
R3	1/28 (.03%)	1/26 (.04%)
R4	0	2/26 (.07%)

	Primary Researcher	Co-observer
Percentage of Speech Act/Utterances		
Declarative	116/189 (61%)	123/191 (64%)
Directive-Question	52/189 (28%)	60 /191 (31%)
Directive-Command	8/189	3/191
Volitive	2/189	1/191
Unknown	11/189	4/191
Percentage of Speech Act/Initiations		
Declarative	15/28 (53%)	12/26 (46%)
Directive-question	9/28 (32%)	12/26 (46%)
Directive-Command	4/28 (14%)	2/26 (.08%)
Volitive	0	0
Unknown	0	0
Mean # of Turns Following Initial Speech Acts		
Declarative	5.0	8.08
Directive-Question	6.3	4.8
Directive-Command	4.5	3.0